Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516001 2015 RE_{242}	16.9	X	191.65553	179.87399	139.02677	11.60390	0.3041839	0.24317474	2.5420870	21	1 22.7	21.6
516002 2015 RJ_{244}	17.2	X	140.69343	314.95327	4.35980	8.80471	0.1650784	0.22195436	2.7016366	21	—	—
516003 2015 RP_{249}	17.0	X	74.47598	157.11329	187.23811	11.93050	0.0667054	0.19693414	2.9258723	21	—	—
516004 2015 RS_{252}	16.8	X	127.10963	317.58219	17.86045	4.81954	0.1035426	0.22401936	2.6850086	21	—	—
516005 2015 RD_{253}	17.0	X	106.48661	282.88604	33.90466	4.09007	0.1098601	0.19605271	2.9346354	21	—	—
516006 2015 RE_{253}	16.9	X	336.76059	263.13810	205.74989	11.53459	0.0064412	0.19805689	2.9148044	21	—	—
516007 2015 RL_{253}	16.7	X	304.15801	249.55519	230.73594	1.74649	0.0731553	0.19110005	2.9851227	21	12 26.0	20.4
516008 2015 RN_{253}	16.7	X	82.19422	281.34236	32.82501	0.42601	0.1629683	0.18672627	3.0315572	21	12 14.6	21.2
516009 2015 RB_{254}	16.7	X	36.79206	204.45463	153.35368	7.42988	0.0074081	0.17811586	3.1284868	21	11 24.6	21.2
516010 2015 RF_{254}	16.4	X	147.22013	246.85791	7.53905	5.16680	0.0852398	0.19931919	2.9024849	21	12 3.8	20.8
516011 2015 RH_{254}	17.2	X	119.52226	121.57471	220.44772	5.09466	0.0358628	0.21600941	2.7509811	21	—	—
516012 2015 RR_{254}	16.5	X	46.73989	188.22186	181.34354	15.61213	0.0151062	0.18261179	3.0769245	21	12 20.9	21.1
516013 2015 RY_{254}	16.1	X	308.85678	256.85757	176.10960	12.33033	0.0490611	0.17868360	3.1218564	21	11 5.6	20.4
516014 2015 RD_{255}	17.3	X	326.28271	320.22479	179.14371	4.29847	0.0129148	0.21528533	2.7571460	21	—	—
516015 2015 RG_{255}	15.8	X	223.20127	6.26389	193.44904	27.56514	0.1038067	0.17884672	3.1199579	21	12 12.3	20.9
516016 2015 RP_{255}	17.4	X	209.42207	36.15152	238.68992	2.53406	0.1188251	0.22778412	2.6553417	21	—	—
516017 2015 RW_{256}	16.6	X	55.49078	358.97983	18.46332	9.83114	0.0658470	0.20394973	2.8583843	21	—	—
516018 2015 RC_{258}	17.2	X	186.67127	185.52886	102.71118	3.25668	0.0587259	0.21870014	2.7283704	21	—	—
516019 2015 SH_{1}	16.5	X	99.03584	32.36624	281.87142	8.21878	0.1668838	0.19768001	2.9185079	21	—	—
516020 2015 SK_{6}	17.0	X	88.96166	333.16106	7.61399	16.70750	0.2392298	0.20353253	2.8622891	21	—	—
516021 2015 SY_{7}	15.6	X	34.92628	0.66078	334.37152	13.45524	0.0960050	0.17374952	3.1806824	21	10 28.0	20.1
516022 2015 SJ_{12}	16.0	X	35.45591	44.14171	290.41547	15.05030	0.1115331	0.17894998	3.1187575	21	11 1.3	20.5
516023 2015 SJ_{13}	16.0	X	25.62615	141.65062	223.69134	9.56236	0.0579538	0.18517671	3.0484457	21	11 25.8	20.0
516024 2015 SS_{16}	15.8	X	33.67476	358.26707	11.19741	27.75717	0.1316365	0.17736163	3.1373497	21	12 15.2	20.6
516025 2015 SH_{23}	17.3	X	143.12905	288.03573	29.25153	12.07781	0.1646210	0.22165831	2.7040416	21	—	—
516026 2015 SQ_{23}	16.9	X	231.90781	209.09830	40.69699	14.69815	0.1156054	0.22764597	2.6564159	21	—	—
516027 2015 SY_{23}	16.8	X	155.70804	94.74674	197.87043	14.52197	0.0846059	0.21465306	2.7625575	21	—	—
516028 2015 SZ_{23}	16.3	X	85.03707	168.53446	164.51371	18.47434	0.2221853	0.18181553	3.0859015	21	—	—
516029 2015 SA_{24}	17.2	X	22.72864	222.79130	205.95697	13.38106	0.0377609	0.21448006	2.7640428	21	—	—
516030 2015 SE_{24}	16.5	X	87.25982	186.76139	119.54710	4.61077	0.1113734	0.18166166	3.0876438	21	12 4.9	21.1
516031 2015 SJ_{24}	16.2	X	219.01921	119.55227	66.94220	12.62276	0.0348568	0.17770304	3.1333301	21	11 30.6	20.8
516032 2015 SP_{24}	16.8	X	96.82586	223.16024	138.75497	7.06313	0.0108989	0.21749713	2.7384219	21	—	—
516033 2015 TV_{1}	16.6	X	170.15938	294.43628	341.07363	4.70144	0.0482845	0.21197421	2.7857835	21	—	—
516034 2015 TQ_{4}	17.4	X	210.05262	183.31263	137.32411	7.47011	0.1863505	0.26799621	2.3825953	21	2 1.7	21.3
516035 2015 TJ_{17}	15.6	X	319.59165	17.48686	68.22858	17.50266	0.1194344	0.18354353	3.0665025	21	12 1.3	19.4
516036 2015 TU_{19}	16.4	X	144.61323	92.18696	244.75228	6.03064	0.0317067	0.22311933	2.6922244	21	—	—
516037 2015 TZ_{50}	17.0	X	92.86304	115.19903	239.17436	5.40293	0.0558631	0.21499412	2.7596351	21	—	—
516038 2015 TK_{62}	16.5	X	190.04942	214.04400	30.65048	10.78221	0.0676184	0.19137008	2.9823140	21	—	—
516039 2015 TF_{75}	17.0	X	82.51413	272.42981	46.21176	1.35426	0.2449092	0.18569502	3.0427706	21	12 27.6	21.9
516040 2015 TS_{106}	16.3	X	147.23847	198.85598	93.04616	7.10662	0.0669767	0.18895850	3.0076347	21	—	—
516041 2015 TQ_{118}	16.2	X	104.93288	151.82368	175.50325	17.48620	0.1541125	0.18411217	3.0601853	21	—	—
516042 2015 TS_{123}	15.8	X	356.01872	263.42390	155.38885	9.75099	0.0579791	0.18020690	3.1042387	21	12 20.8	20.1
516043 2015 TL_{125}	16.4	X	317.02454	331.52391	116.93971	10.47018	0.0647101	0.17425942	3.1744747	21	12 3.4	20.6
516044 2015 TA_{131}	16.1	X	281.81481	31.97037	95.49021	10.45032	0.0456110	0.17511209	3.1641614	21	12 4.9	20.4
516045 2015 TV_{135}	16.2	X	39.86786	243.79949	147.31307	11.16762	0.0596870	0.18655901	3.0333689	21	—	—
516046 2015 TL_{136}	16.4	X	118.76166	151.76284	125.26324	12.24895	0.1628527	0.17548058	3.1597302	21	12 5.8	21.6
516047 2015 TC_{137}	16.1	X	17.57961	277.84396	108.48384	10.66446	0.0698814	0.17452896	3.1712054	21	12 10.7	20.4
516048 2015 TF_{137}	16.1	X	167.84447	142.08930	97.18915	12.64479	0.0321623	0.17510785	3.1642125	21	12 6.6	20.7
516049 2015 TS_{137}	16.4	X	107.31942	178.39944	126.64123	10.13764	0.0830976	0.18113748	3.0935977	21	12 21.4	21.2
516050 2015 TP_{138}	16.3	X	90.10681	159.36500	158.61257	9.84699	0.0714791	0.17737204	3.1372269	21	12 16.8	21.1
516051 2015 TD_{139}	16.1	X	152.29439	119.71086	134.55818	11.82127	0.0863002	0.17502863	3.1651672	21	12 7.7	21.1
516052 2015 TY_{149}	16.4	X	85.93757	328.18246	13.65090	7.54824	0.0721830	0.20136520	2.8827906	21	—	—
516053 2015 TO_{151}	16.7	X	110.13911	317.39658	7.43094	12.85089	0.0611086	0.20597745	2.8395941	21	—	—
516054 2015 TV_{154}	17.3	X	181.70492	4.20122	241.69045	1.10452	0.0285479	0.20043375	2.8917149	21	—	—
516055 2015 TA_{157}	17.1	X	36.75154	220.08867	197.58026	4.03471	0.0602625	0.20848992	2.8167351	21	—	—
516056 2015 TS_{172}	17.6	X	229.33613	246.73089	67.22385	4.98832	0.3011260	0.25916331	2.4364287	21	2 11.2	22.1
516057 2015 TM_{176}	16.1	X	90.92141	175.75881	184.37261	11.99700	0.0695345	0.19720231	2.9232192	21	—	—
516058 2015 TW_{182}	16.1	X	349.38608	197.07047	202.13815	10.19835	0.0845776	0.17427374	3.1743008	21	11 18.1	20.2
516059 2015 TY_{182}	16.3	X	313.46032	268.54455	200.73738	11.12253	0.1149428	0.18594838	3.0400061	21	12 22.0	20.1
516060 2015 TT_{188}	17.5	X	189.95367	130.09059	194.21156	10.23123	0.3041423	0.25391685	2.4698754	21	1 24.7	22.2
516061 2015 TK_{194}	15.8	X	144.71336	348.66966	286.94649	9.71278	0.0702853	0.19641060	2.9310694	21	12 26.9	20.2
516062 2015 TF_{196}	16.7	X	94.95562	128.20540	201.45035	9.56776	0.0901626	0.19948438	2.9008824	21	—	—
516063 2015 TW_{197}	16.2	X	13.63208	197.46139	191.06618	9.40371	0.0931855	0.18244365	3.0788147	21	12 11.8	20.4
516064 2015 TJ_{203}	15.7	X	29.43742	321.51062	40.25428	27.12050	0.2029753	0.17563494	3.1578787	21	12 7.5	20.1
516065 2015 TC_{206}	16.7	X	328.30254	43.73553	44.92614	2.17986	0.1325787	0.18629097	3.0362778	21	12 20.1	20.3
516066 2015 TK_{208}	16.1	X	75.80615	48.30753	274.63949	9.56853	0.1520409	0.18405670	3.0608000	21	12 16.9	20.7
516067 2015 TX_{215}	17.0	X	139.51292	143.19511	188.35630	5.30891	0.0513467	0.22131257	2.7068571	21	—	—
516068 2015 TS_{222}	17.4	X	252.89162	152.08183	127.31544	2.99871	0.2166469	0.25892803	2.4379044	21	1 19.3	21.4
516069 2015 TE_{232}	14.9	X	16.83927	191.61991	142.50091	19.04213	0.0695887	0.14654840	3.5629960	21	10 6.7	19.9
516070 2015 TD_{234}	16.2	X	89.56014	356.35334	315.39144	9.49382	0.1463383	0.18879369	3.0093849	21	12 17.9	20.9
516071 2015 TH_{254}	16.1	X	68.98047	267.29299	50.27823	11.09723	0.1035379	0.17438200	3.1729869	21	11 24.7	20.6
516072 2015 TZ_{258}	16.8	X	178.34499	38.96003	237.01840	4.12809	0.2239060	0.22370324	2.6875375	21	—	—
516073 2015 TR_{282}	16.5	X	144.47152	31.00727	213.77545	9.14742	0.0667608	0.18149998	3.0894772	21	11 18.3	21.2
516074 2015 TB_{283}	16.4	X	325.06287	220.81634	211.69372	10.03289	0.0359643	0.18092775	3.0959879	21	11 25.9	20.6
516075 2015 TU_{294}	16.3	X	53.35407	44.78137	297.68731	13.13911	0.0956179	0.17858443	3.1230121	21	12 6.2	20.8
516076 2015 TQ_{296}	16.3	X	140.03686	34.38203	204.41108	8.74659	0.0422543	0.17567171	3.1574380	21	11 5.1	20.9
516077 2015 TK_{303}	17.1	X	156.29142	170.86055	145.98817	4.88616	0.0567611	0.21542759	2.7559320	21	—	—
516078 2015 TN_{303}	16.1	X	59.01659	190.95115	177.21499	10.47479	0.1032804	0.19241100	2.9715483	21	—	—
516079 2015 TP_{303}	16.4	X	114.10054	115.24523	184.17402	10.97809	0.0294310	0.18502703	3.0500895	21	12 18.4	21.0
516080 2015 TG_{319}	17.1	X	128.40371	274.37530	37.14355	2.49917	0.0548327	0.20322288	2.8651959	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516081 2015 TQ_{322}	17.1	X	89.36389	252.52120	79.48573	3.18098	0.0978096	0.19645344	2.9306433	21	—	—
516082 2015 TP_{327}	15.9	X	350.25752	258.15568	145.85246	15.62594	0.0481936	0.17579651	3.1559435	21	11 26.9	20.4
516083 2015 TW_{331}	15.9	X	209.05845	58.19043	128.04953	12.29807	0.0596701	0.17176092	3.2051854	21	11 19.3	20.8
516084 2015 TZ_{333}	15.9	X	76.75885	140.28807	155.37082	17.29545	0.1294760	0.17270622	3.1934790	21	11 15.8	20.9
516085 2015 TP_{344}	16.4	X	100.48375	250.10819	38.04157	9.37890	0.0687406	0.17692500	3.1425094	21	11 20.7	21.1
516086 2015 TV_{345}	17.3	X	185.60552	135.54687	144.93361	2.94009	0.1605688	0.21895827	2.7262257	21	—	—
516087 2015 TZ_{345}	16.1	X	36.73785	159.14251	181.56350	11.27945	0.0909524	0.17492971	3.1663603	21	11 14.3	20.5
516088 2015 TF_{348}	16.0	X	16.68241	323.65136	41.48005	17.34494	0.1202280	0.17231877	3.1982641	21	11 15.6	20.1
516089 2015 TO_{358}	16.4	X	84.36750	299.05495	19.40394	9.58428	0.1111037	0.18705864	3.0279652	21	12 15.6	21.0
516090 2015 TF_{359}	16.3	X	154.60989	224.60808	81.16991	16.76652	0.2222562	0.22285664	2.6943396	21	—	—
516091 2015 TP_{359}	15.8	X	127.50672	218.98287	31.31470	16.26180	0.0476300	0.17995689	3.1071132	21	11 3.4	20.3
516092 2015 TY_{359}	16.5	X	219.36225	32.22887	182.51284	9.00255	0.0526305	0.18789218	3.0190033	21	—	—
516093 2015 TN_{364}	16.4	X	82.49446	179.11924	152.50781	9.80777	0.0843045	0.17699914	3.1416318	21	12 25.3	21.1
516094 2015 TP_{364}	16.3	X	207.45956	111.44208	88.93521	14.35861	0.0804015	0.17540518	3.1606357	21	11 30.7	21.1
516095 2015 TT_{364}	16.2	X	56.12316	291.34417	45.41415	8.55371	0.0287040	0.17129794	3.2109580	21	11 21.9	20.8
516096 2015 TW_{364}	16.2	X	214.20535	96.08937	112.92428	7.19932	0.1271031	0.18101739	3.0949658	21	12 12.9	20.8
516097 2015 TG_{365}	16.2	X	25.67451	163.82652	197.84206	8.83036	0.0929351	0.17589135	3.1548089	21	11 24.5	20.4
516098 2015 TK_{366}	16.6	X	152.98516	77.10774	180.51566	11.51242	0.0785263	0.18441253	3.0568616	21	12 12.6	21.4
516099 2015 TS_{366}	16.4	X	339.89167	2.30753	33.40695	2.55669	0.0609255	0.15773678	3.3924548	21	10 26.8	20.8
516100 2015 UQ	16.9	X	178.62863	110.93904	174.85013	4.53093	0.0788100	0.21551203	2.7552121	21	—	—
516101 2015 UM_{2}	16.2	X	356.25283	206.86460	186.86077	10.62427	0.1463448	0.17491949	3.1664837	21	11 26.1	20.1
516102 2015 UT_{2}	16.6	X	282.46940	263.66381	202.12889	5.20331	0.0702347	0.17258724	3.1949465	21	11 5.6	20.8
516103 2015 UT_{3}	17.2	X	197.69071	236.68149	52.28969	5.80617	0.1598642	0.23112919	2.6296595	21	—	—
516104 2015 UJ_{6}	16.7	X	69.91310	270.15102	101.59783	4.51582	0.0742948	0.20228740	2.8740224	21	—	—
516105 2015 UA_{12}	16.8	X	151.21428	241.40001	16.34790	9.70086	0.0622656	0.18940499	3.0029062	21	12 9.7	21.5
516106 2015 UB_{13}	16.6	X	255.32953	123.67610	24.37631	15.69639	0.1030367	0.17951503	3.1122096	21	11 14.8	21.1
516107 2015 UB_{14}	17.9	X	212.40238	259.39591	35.67460	6.87045	0.1705479	0.24227272	2.5483928	21	1 8.6	22.1
516108 2015 UN_{15}	16.6	X	209.42743	150.63985	35.55716	11.42205	0.0555461	0.17917200	3.1161806	21	11 15.8	21.2
516109 2015 UV_{15}	16.5	X	134.76423	218.44288	35.21791	10.65021	0.0431008	0.17794226	3.1305212	21	11 15.1	21.1
516110 2015 UY_{17}	16.5	X	274.28063	94.29409	32.40041	16.34303	0.0647815	0.17815385	3.1280420	21	11 18.3	20.9
516111 2015 UW_{22}	16.7	X	44.24452	182.44109	175.13598	9.55822	0.1623960	0.18503058	3.0500506	21	12 24.2	21.0
516112 2015 UX_{30}	16.7	X	91.90291	137.25566	156.06811	3.00394	0.1434228	0.18013249	3.1050935	21	11 27.6	21.5
516113 2015 UZ_{33}	16.7	X	109.22432	231.27856	55.05938	5.51598	0.1040335	0.18202065	3.0835828	21	12 2.4	21.3
516114 2015 UF_{41}	17.8	X	234.70100	155.56229	146.52108	1.76335	0.1880796	0.25736259	2.4477803	21	2 1.5	21.8
516115 2015 UE_{48}	16.1	X	135.83252	168.70831	101.63235	11.45891	0.0639406	0.17532174	3.1616385	21	12 8.8	20.9
516116 2015 UH_{53}	16.1	X	341.88413	276.84924	123.95661	4.47184	0.1256713	0.17049075	3.2210849	21	11 9.3	20.0
516117 2015 UD_{54}	16.4	X	69.27146	236.15459	99.55911	2.08583	0.1026395	0.18736016	3.0247156	21	12 19.6	20.8
516118 2015 UY_{54}	16.7	X	270.33617	64.55861	52.24284	2.39795	0.0788435	0.17115560	3.2127380	21	11 1.6	21.2
516119 2015 UC_{55}	16.4	X	322.79098	230.07320	197.80806	8.97359	0.0699036	0.17407382	3.1767307	21	11 15.2	20.5
516120 2015 UB_{56}	16.1	X	12.62090	178.33269	197.42203	15.51021	0.1631852	0.17419089	3.1753073	21	12 1.2	20.2
516121 2015 UN_{56}	17.2	X	112.16845	234.86270	89.80211	3.15341	0.0901626	0.20213643	2.8754533	21	—	—
516122 2015 UP_{58}	16.4	X	149.26564	166.53432	96.52034	10.26539	0.1052486	0.18132655	3.0914469	21	12 14.5	21.2
516123 2015 UA_{59}	16.9	X	187.10736	233.75036	82.40112	15.82534	0.2734055	0.23618846	2.5919718	21	1 17.4	21.6
516124 2015 UC_{59}	16.3	X	131.14323	121.34877	166.44055	11.59704	0.1198107	0.18453925	3.0554619	21	12 26.4	21.3
516125 2015 UA_{60}	16.8	X	213.38005	111.30750	176.19044	10.42993	0.0210725	0.21987219	2.7186659	21	—	—
516126 2015 UO_{62}	16.3	X	51.49998	333.60358	51.90998	10.19500	0.1275357	0.20141283	2.8823361	21	—	—
516127 2015 UC_{73}	16.2	X	52.44419	135.29713	203.49021	12.16647	0.0916886	0.18243899	3.0788672	21	12 2.0	20.6
516128 2015 UJ_{82}	16.7	X	28.47916	320.61179	35.31889	10.54006	0.1300725	0.17806138	3.1291249	21	11 23.8	20.8
516129 2015 UM_{83}	15.8	X	36.23719	292.91259	59.12516	10.96491	0.1491765	0.17715796	3.1397538	21	12 3.2	19.9
516130 2015 UQ_{86}	16.2	X	85.52708	267.19046	75.48482	11.17777	0.0651470	0.18441948	3.0567848	21	—	—
516131 2015 VV_{6}	16.1	X	99.11989	237.43926	90.31655	12.60603	0.2118693	0.19656503	2.9295340	21	—	—
516132 2015 VK_{39}	16.4	X	29.32926	342.66793	25.12934	13.16289	0.1478956	0.17445549	3.1720958	21	12 10.9	20.8
516133 2015 VD_{72}	15.9	X	97.56348	212.38376	93.17227	12.59189	0.0659393	0.17508176	3.1645268	21	12 9.5	20.6
516134 2015 VQ_{90}	16.4	X	34.49910	18.50266	15.32369	9.80629	0.1196072	0.18782208	3.0197543	21	—	—
516135 2015 VD_{91}	15.8	X	67.64037	313.66367	25.30310	13.69464	0.1110127	0.18033750	3.1027397	21	12 20.4	20.5
516136 2015 VU_{96}	16.5	X	197.80440	183.60953	46.53814	11.58202	0.0467624	0.18509414	3.0493523	21	12 28.3	21.1
516137 2015 VX_{107}	16.1	X	6.07762	347.45054	36.97781	11.62690	0.1287462	0.17313199	3.1882412	21	11 24.8	20.1
516138 2015 VJ_{111}	16.2	X	79.82147	348.95603	357.86951	7.45701	0.1490151	0.19177598	2.9781044	21	—	—
516139 2015 VS_{116}	15.9	X	65.92006	251.67654	75.29288	24.50083	0.1911454	0.17977640	3.1091924	21	12 14.2	20.5
516140 2015 VY_{125}	15.6	X	61.34337	181.20815	151.62320	18.18512	0.1864129	0.18130569	3.0916840	21	12 18.7	20.5
516141 2015 VG_{143}	16.3	X	62.22756	264.09532	81.54157	11.42657	0.1213735	0.18539789	3.0460207	21	12 25.3	20.6
516142 2015 WM_{15}	16.7	X	353.56986	263.07108	166.15871	10.00173	0.0513857	0.17854857	3.1234301	21	12 28.6	21.0
516143 2015 WE_{18}	16.4	X	99.04793	271.52502	51.36250	10.82757	0.0823518	0.17973594	3.1096590	21	—	—
516144 2015 XA_{29}	16.0	X	33.17538	305.02088	83.59264	12.15467	0.0576214	0.17965818	3.1105562	21	12 31.9	20.4
516145 2015 XS_{38}	16.7	X	101.11342	134.45732	179.70757	5.61103	0.1457845	0.18142631	3.0903135	21	12 29.8	21.7
516146 2015 XD_{41}	17.3	X	176.66750	161.21769	147.43374	5.39072	0.3502349	0.22584657	2.6705070	21	1 5.5	22.3
516147 2015 XK_{41}	16.2	X	123.76519	212.45754	77.92010	11.10816	0.0939885	0.17694972	3.1422167	21	12 19.9	21.1
516148 2015 XW_{89}	15.6	X	314.27285	286.89601	142.68534	17.98023	0.2004760	0.16864579	3.2445344	21	10 29.1	19.6
516149 2015 XM_{115}	15.9	X	110.93488	191.47404	115.90447	10.62169	0.1168365	0.17889947	3.1193445	21	12 29.2	20.8
516150 2015 XB_{174}	16.2	X	72.38535	148.83196	190.62041	7.93433	0.0424944	0.17250397	3.1959746	21	12 17.3	20.9
516151 2015 XC_{350}	16.3	X	160.97062	35.73687	256.48767	7.04484	0.1078666	0.19502975	2.9448881	21	—	—
516152 2015 XE_{386}	13.4	X	67.32812	306.24811	242.07624	14.83464	0.0863426	0.08287974	5.2099929	21	6 14.1	20.2
516153 2015 XN_{396}	16.3	X	96.40190	260.86222	73.49272	12.37690	0.0689548	0.18477559	3.0528560	21	—	—
516154 2016 CL_{32}	19.3	X	317.37993	292.91034	123.51394	12.21435	0.4599157	0.51407901	1.5432968	21	—	—
516155 2016 DP	20.1	X	329.07147	254.00956	54.37816	13.32763	0.4771146	0.95321433	1.0225291	21	2 2.2	20.9
516156 2016 FP_{29}	16.6	X	140.64258	52.37909	21.34679	12.13667	0.0285345	0.19881242	2.9074151	21	4 10.0	20.6
516157 2016 LT_{8}	18.6	X	230.35345	195.99643	194.07125	24.11174	0.1193070	0.38544734	1.8699329	21	5 17.7	21.2
516158 2016 LN_{9}	18.3	X	220.11258	252.32167	160.55986	20.15646	0.1180143	0.39160005	1.8502947	21	6 10.3	21.1
516159 2016 LP_{9}	18.6	X	212.08899	281.55830	109.64868	22.16222	0.1075730	0.37745801	1.8962268	21	5 7.9	21.6
516160 2016 LQ_{9}	18.7	X	196.35940	245.73463	178.25002	23.56315	0.0947094	0.39191529	1.8493023	21	5 28.9	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516161 2016 LH_{53}	18.6	X	75.50024	48.00024	165.45461	23.22728	0.0478112	0.38562098	1.8693715	21	7 23.2	20.8
516162 2016 NL_{47}	18.2	X	109.35279	18.98309	345.74502	4.01617	0.1698091	0.27345520	2.3507797	21	—	—
516163 2016 NP_{48}	16.2	X	278.17430	66.11123	316.91742	14.99263	0.2504483	0.17648854	3.1476882	21	6 23.6	21.0
516164 2016 NC_{58}	18.6	X	349.24337	128.79678	195.55719	22.02036	0.0690743	0.38775757	1.8624982	21	8 24.2	20.3
516165 2016 NF_{71}	16.9	X	22.49720	280.01482	111.15535	15.03754	0.1790942	0.23917243	2.5703680	21	—	—
516166 2016 NT_{71}	16.4	X	59.03096	98.28240	287.89305	12.81108	0.0455434	0.24237409	2.5476822	21	—	—
516167 2016 PW_{21}	17.8	X	75.80292	282.39579	98.95329	5.68593	0.2236949	0.26860145	2.3790148	21	—	—
516168 2016 PP_{75}	17.2	X	95.97166	21.52678	354.13670	10.84309	0.2185110	0.25990367	2.4317996	21	—	—
516169 2016 PM_{77}	17.9	X	327.49347	127.89034	197.60846	21.19812	0.0889668	0.37559066	1.9025067	21	7 7.9	20.0
516170 2016 PH_{79}	17.7	X	95.19415	340.20884	177.82733	22.68579	0.0590125	0.35778875	1.9651013	21	5 30.7	20.3
516171 2016 PJ_{79}	18.5	X	163.91221	104.44842	335.43535	18.33985	0.0577802	0.35465230	1.9766701	21	4 26.3	21.2
516172 2016 PO_{79}	18.2	X	214.38458	26.26473	6.96375	21.48986	0.0898049	0.35251310	1.9846589	21	4 25.3	21.1
516173 2016 PA_{80}	17.9	X	338.85573	127.13678	159.38480	22.32869	0.0306339	0.36193476	1.9500654	21	6 6.9	20.4
516174 2016 PY_{82}	17.6	X	42.49285	357.17897	81.95285	6.99927	0.1164051	0.27320873	2.3521933	21	—	—
516175 2016 PP_{87}	17.0	X	325.58682	95.87057	350.43200	12.74589	0.1694424	0.21780381	2.7358507	21	12 22.4	20.0
516176 2016 PW_{87}	17.5	X	41.07762	28.62093	357.81439	4.51730	0.1432655	0.23308205	2.6149507	21	—	—
516177 2016 PQ_{93}	16.8	X	261.02293	21.73322	60.58248	5.56962	0.2534809	0.17034078	3.2229752	21	8 18.1	21.7
516178 2016 PU_{94}	17.3	X	313.79509	123.82483	342.89561	12.88298	0.2177203	0.22559088	2.6725245	21	12 30.3	19.9
516179 2016 PG_{98}	16.7	X	341.91115	109.50278	349.62488	8.26234	0.1390116	0.23589912	2.5940908	21	—	—
516180 2016 QC_{46}	17.7	X	92.40029	220.95201	147.65191	9.95948	0.2296576	0.26742682	2.3859760	21	—	—
516181 2016 QQ_{49}	18.0	X	308.29595	136.66829	161.20029	23.28858	0.0628828	0.35723129	1.9671451	21	4 30.1	20.5
516182 2016 QN_{78}	17.1	X	131.50163	219.73476	154.65770	22.98012	0.2638462	0.28753943	2.2733751	21	1 29.5	20.3
516183 2016 QX_{84}	17.8	X	127.23929	344.89369	33.78229	4.89913	0.1506319	0.28335074	2.2957248	21	1 16.2	20.5
516184 2016 QF_{88}	16.8	X	334.87409	300.17852	93.18678	11.10438	0.0864062	0.19200598	2.9757256	21	10 27.1	20.6
516185 2016 RL_{1}	16.5	X	20.22982	267.99554	114.00894	10.49189	0.3195297	0.21924651	2.7238358	21	—	—
516186 2016 RQ_{16}	17.7	X	119.49607	38.41927	329.71757	9.65133	0.2440076	0.27484360	2.3428562	21	1 8.7	20.5
516187 2016 RO_{29}	18.1	X	144.43924	3.75106	26.37989	6.40347	0.1532627	0.29606019	2.2295440	21	2 22.1	21.0
516188 2016 RA_{38}	18.0	X	170.45789	299.77668	33.26366	3.86104	0.2095247	0.29666825	2.2264964	21	1 10.8	21.2
516189 2016 RJ_{42}	18.7	X	1.09370	113.60725	190.05797	20.15834	0.1329040	0.38015964	1.8872324	21	8 15.7	20.1
516190 2016 RK_{42}	18.1	X	336.03182	120.15306	193.73582	21.54679	0.1100813	0.37248308	1.9130736	21	7 3.4	20.2
516191 2016 RG_{45}	16.8	X	18.10098	343.91262	113.56899	6.79762	0.1804767	0.24310998	2.5425384	21	—	—
516192 2016 RD_{46}	17.7	X	330.56132	202.38707	230.98265	2.35612	0.1984257	0.21673665	2.7448239	21	12 14.2	20.0
516193 2016 SR_{11}	17.8	X	128.98070	20.11481	34.88479	6.65848	0.0805835	0.30368605	2.1920619	21	2 24.8	20.4
516194 2016 SO_{12}	17.4	X	60.81156	218.61620	144.50163	4.40081	0.2471034	0.23740563	2.5831049	21	—	—
516195 2016 SF_{16}	18.0	X	348.70421	72.43616	188.69074	23.70978	0.0928682	0.34978715	1.9949567	21	5 4.1	19.8
516196 2016 SJ_{24}	16.7	X	276.74962	47.34346	18.42907	10.15617	0.2212730	0.17714123	3.1399515	21	8 22.2	21.2
516197 2016 ST_{25}	17.7	X	133.63045	359.49463	13.11403	7.24326	0.1317105	0.28694637	2.2765065	21	1 13.4	20.6
516198 2016 SQ_{34}	17.7	X	146.34374	18.85693	20.30745	7.94396	0.0668698	0.30499382	2.1857913	21	2 24.0	20.4
516199 2016 SV_{35}	16.6	X	316.50466	314.94715	72.47145	17.89246	0.3516811	0.18233689	3.0800163	21	8 14.5	20.1
516200 2016 SM_{36}	17.1	X	20.30484	36.36674	46.99619	13.18951	0.1690984	0.24656743	2.5187143	21	—	—
516201 2016 SX_{36}	17.0	X	37.78210	182.60729	227.14989	2.37578	0.1827443	0.23424491	2.6062892	21	—	—
516202 2016 SK_{38}	17.7	X	99.91297	82.13852	269.65021	0.44586	0.1953928	0.25667635	2.4521412	21	—	—
516203 2016 SF_{45}	17.8	X	159.43008	356.42002	350.06216	7.63671	0.1922926	0.28921040	2.2646101	21	1 17.5	21.0
516204 2016 SO_{49}	17.3	X	14.28434	236.95759	166.96485	6.41585	0.2144065	0.22624209	2.6673936	21	—	—
516205 2016 TC_{8}	17.5	X	97.01755	299.67157	123.37603	7.29490	0.1114715	0.28097965	2.3086219	21	1 26.2	19.6
516206 2016 TO_{8}	16.8	X	315.80029	39.68184	34.24242	15.51068	0.2639963	0.20001033	2.8957946	21	10 31.3	19.4
516207 2016 TQ_{9}	17.8	X	312.54315	168.09014	209.08161	20.76252	0.0830734	0.38492050	1.8716387	21	9 11.8	19.6
516208 2016 TX_{24}	16.6	X	320.84955	353.06489	42.90742	10.60993	0.1209824	0.18272698	3.0756312	21	10 3.6	20.4
516209 2016 TZ_{29}	16.3	X	260.93300	207.42091	272.46396	10.58051	0.1687254	0.19271180	2.9684553	21	10 9.4	20.7
516210 2016 TM_{31}	18.1	X	191.15792	67.11695	267.89670	4.52374	0.0820918	0.29207295	2.2497892	21	1 23.1	21.2
516211 2016 TX_{43}	18.3	X	64.75491	288.42521	200.20043	5.30275	0.0715052	0.30512877	2.1851468	21	2 24.8	20.6
516212 2016 TF_{48}	17.1	X	114.29434	166.02245	140.47568	5.94022	0.0360122	0.22390057	2.6859582	21	—	—
516213 2016 TO_{56}	16.7	X	307.62107	38.50603	12.53583	20.47030	0.3471470	0.18247523	3.0784595	21	9 3.3	20.3
516214 2016 TB_{61}	17.3	X	36.70477	196.61066	186.18676	3.29684	0.2231318	0.23116678	2.6293744	21	—	—
516215 2016 TT_{72}	16.6	X	294.74768	237.18525	171.45474	9.23372	0.2086001	0.18014756	3.1049204	21	8 21.4	20.6
516216 2016 TN_{74}	17.8	X	54.10146	255.62312	204.95970	4.83918	0.1162032	0.28087261	2.3092084	21	1 4.4	20.0
516217 2016 TT_{83}	17.0	X	28.61022	235.43420	178.88865	14.03903	0.1657157	0.23896645	2.5718449	21	—	—
516218 2016 TZ_{85}	17.1	X	63.22169	286.09580	56.21850	5.67856	0.1195764	0.21698535	2.7427261	21	12 28.7	21.0
516219 2016 TP_{96}	16.8	X	38.27188	310.97003	124.72037	13.53453	0.0765623	0.24113433	2.5564071	21	—	—
516220 2016 TQ_{96}	15.7	X	294.87960	158.24678	265.17526	15.88897	0.1594100	0.17766485	3.1337790	21	9 9.6	20.1
516221 2016 TA_{97}	16.5	X	276.32283	81.81065	16.00537	10.29395	0.0707598	0.19007472	2.9958483	21	10 19.4	20.6
516222 2016 UR_{3}	18.3	X	45.92014	234.49803	246.88566	4.42332	0.0307011	0.29209931	2.2496538	21	1 17.2	20.7
516223 2016 UU_{3}	17.4	X	307.99266	109.56238	6.57680	12.94024	0.1192921	0.22644711	2.6657834	21	—	—
516224 2016 UZ_{3}	17.4	X	62.15120	43.27155	9.64596	9.60398	0.2133237	0.25709616	2.4494711	21	—	—
516225 2016 UZ_{13}	16.8	X	322.05856	189.86529	251.51170	8.20206	0.0993606	0.21320773	2.7750283	21	12 7.8	20.0
516226 2016 UL_{14}	17.7	X	0.87876	188.50050	237.19290	1.64703	0.1321660	0.22464352	2.6800329	21	—	—
516227 2016 UL_{17}	17.2	X	326.08725	62.01685	29.07390	12.51345	0.1845726	0.21517365	2.7580999	21	12 29.4	20.2
516228 2016 UF_{24}	17.5	X	8.58522	54.56029	32.68419	17.15084	0.0996723	0.24156717	2.5533525	21	—	—
516229 2016 UG_{24}	18.0	X	206.04201	110.11284	209.38240	2.35290	0.1689585	0.29770368	2.2213308	21	1 22.7	21.4
516230 2016 UX_{26}	17.6	X	106.06262	168.37183	243.57523	4.70009	0.0750243	0.28041636	2.3117125	21	1 17.9	20.2
516231 2016 UE_{30}	17.6	X	43.52077	7.66940	14.09794	5.07827	0.0797626	0.22717815	2.6600615	21	—	—
516232 2016 UU_{33}	16.6	X	71.86764	100.30943	234.59498	10.95880	0.0797651	0.21311419	2.7758403	21	12 22.9	20.6
516233 2016 UC_{34}	16.3	X	331.13837	357.17454	40.90893	10.24874	0.0866717	0.18745535	3.0236916	21	10 22.7	20.1
516234 2016 UW_{34}	16.7	X	326.84447	226.61086	177.48568	1.43285	0.1546681	0.19023395	2.9941763	21	10 20.3	20.0
516235 2016 UH_{37}	17.4	X	73.41153	289.31794	57.31503	2.30267	0.1312790	0.22503851	2.6768959	21	—	—
516236 2016 UO_{39}	17.9	X	27.04120	119.93104	345.65272	4.38836	0.1339868	0.25747481	2.4470690	21	—	—
516237 2016 UF_{41}	17.7	X	232.07367	249.97422	70.62386	6.12933	0.2704653	0.31134671	2.1559558	21	2 16.9	21.4
516238 2016 UA_{43}	16.2	X	254.69049	55.29635	53.30625	8.74561	0.1923719	0.17471475	3.1689570	21	9 22.4	21.0
516239 2016 UO_{60}	16.2	X	250.48958	261.96430	223.66774	24.90099	0.1990937	0.18230675	3.0803558	21	9 29.9	21.1
516240 2016 UX_{64}	17.2	X	9.34386	270.95566	266.78246	6.11329	0.0500157	0.29914357	2.2141970	21	2 6.3	19.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516241 2016 US_{66}	17.6	X	16.23816	269.58299	174.20312	8.36903	0.0550032	0.24328545	2.5413157	21	—	—
516242 2016 UM_{72}	17.5	X	20.95433	64.42614	1.15784	1.90920	0.1954247	0.23604203	2.5930436	21	—	—
516243 2016 UN_{74}	16.9	X	337.76917	49.90382	26.22267	9.75739	0.0166798	0.22043358	2.7140481	21	12 24.1	20.6
516244 2016 UH_{77}	16.7	X	41.81357	358.13701	68.96130	19.43793	0.1674377	0.24032036	2.5621763	21	—	—
516245 2016 UL_{80}	16.0	X	322.72014	216.92714	197.40868	8.33484	0.1095724	0.18814332	3.0163161	21	10 29.3	19.6
516246 2016 UA_{82}	16.9	X	337.94536	47.96707	38.97316	12.58015	0.0727320	0.22286748	2.6942522	21	—	—
516247 2016 UQ_{86}	18.0	X	16.97349	103.34377	30.52215	6.35810	0.1307211	0.27129420	2.3632466	21	—	—
516248 2016 UG_{87}	17.4	X	339.19201	62.39090	26.56241	9.73017	0.0621434	0.22758067	2.6569240	21	—	—
516249 2016 UF_{88}	18.0	X	73.96095	53.11050	33.54528	7.50355	0.0494834	0.28068785	2.3102216	21	1 17.7	20.7
516250 2016 UQ_{93}	17.5	X	48.46860	323.98247	45.78455	5.55481	0.0737759	0.22562754	2.6722350	21	—	—
516251 2016 UF_{95}	17.8	X	330.34934	223.70133	214.22515	4.46355	0.1497911	0.21382502	2.7696849	21	12 17.9	20.7
516252 2016 UY_{104}	17.6	X	331.09710	27.09170	29.35232	1.83438	0.1472073	0.20251326	2.8718851	21	11 16.4	20.6
516253 2016 UG_{105}	17.5	X	358.43246	67.90594	27.61614	5.62865	0.0928087	0.23828556	2.5767418	21	—	—
516254 2016 UC_{108}	17.2	X	29.24024	236.91542	175.19523	2.45828	0.1682089	0.23531461	2.5983848	21	—	—
516255 2016 UB_{124}	17.3	X	77.17868	120.89288	290.28678	5.27867	0.1270982	0.26168371	2.4207592	21	—	—
516256 2016 UN_{135}	18.3	X	207.39612	282.30722	74.53312	5.64155	0.1853504	0.31314831	2.1476788	21	3 14.5	21.7
516257 2016 UF_{144}	17.9	X	72.78817	132.74686	343.78198	4.95123	0.0570058	0.30730738	2.1748070	21	2 20.9	20.0
516258 2016 UL_{146}	16.6	X	29.19947	136.56263	250.44890	12.84611	0.0978603	0.22123006	2.7075301	21	—	—
516259 2016 UH_{148}	16.3	X	343.79692	205.90243	159.43800	6.39011	0.1697337	0.18066196	3.0990238	21	9 28.5	19.6
516260 2016 UJ_{148}	16.8	X	217.93209	164.39951	66.28522	13.72524	0.1131094	0.22561996	2.6722948	21	—	—
516261 2016 UM_{148}	16.8	X	154.86351	317.28945	332.72104	14.44220	0.1006446	0.23882299	2.5728746	21	—	—
516262 2016 UN_{148}	16.4	X	218.06600	172.55100	73.62734	14.32597	0.0519914	0.24514692	2.5284348	21	—	—
516263 2016 UO_{148}	17.0	X	356.23154	78.25710	41.93504	14.62752	0.1403359	0.23788648	2.5796228	21	—	—
516264 2016 VC	17.6	X	191.49636	242.03112	93.42911	9.11343	0.2623121	0.29625514	2.2285658	21	2 5.8	21.4
516265 2016 VU_{6}	17.2	X	9.57872	67.98957	68.47313	7.17979	0.0732262	0.26245865	2.4159918	21	—	—
516266 2016 VZ_{9}	17.4	X	90.57147	12.96780	36.54148	12.12728	0.0276652	0.26709872	2.3879295	21	—	—
516267 2016 VG_{13}	17.2	X	291.19433	300.77450	157.00479	2.57700	0.0413440	0.20092083	2.8870396	21	11 15.6	21.0
516268 2016 VN_{13}	17.1	X	303.05411	46.00134	71.16205	8.76123	0.2784005	0.20265173	2.8705768	21	12 3.2	19.4
516269 2016 VM_{15}	16.7	X	103.22209	14.34661	327.51425	12.92376	0.1887072	0.24442071	2.5334405	21	—	—
516270 2016 VP_{18}	17.2	X	64.65951	99.81905	258.17544	11.64848	0.1247008	0.23297717	2.6157354	21	—	—
516271 2016 VL_{19}	17.6	X	56.56811	320.87506	99.42514	4.17228	0.1718826	0.23653368	2.5894492	21	—	—
516272 2016 WW_{5}	16.2	X	310.77002	351.04586	62.09474	10.54990	0.1590362	0.18167803	3.0874584	21	10 6.7	20.0
516273 2016 WO_{12}	17.8	X	28.65559	116.19174	282.61161	0.97821	0.2084721	0.22677649	2.6632015	21	—	—
516274 2016 WX_{13}	18.1	X	52.78278	77.99768	22.63676	4.62080	0.1452240	0.27401482	2.3475779	21	1 6.4	20.1
516275 2016 WP_{15}	16.9	X	218.24359	334.89642	247.47846	10.26261	0.0536595	0.22937927	2.6430169	21	—	—
516276 2016 WY_{16}	17.6	X	258.83763	162.40921	97.98778	4.98087	0.1267227	0.27767714	2.3268906	21	1 2.9	21.0
516277 2016 WK_{17}	17.7	X	150.00961	193.51948	156.41867	8.04167	0.1460906	0.27179783	2.3603263	21	1 6.8	20.9
516278 2016 WQ_{18}	17.2	X	300.50002	235.11577	201.62514	5.43054	0.1636716	0.19037164	2.9927323	21	10 16.3	20.6
516279 2016 WA_{19}	17.3	X	130.98370	290.76508	48.44762	8.32782	0.2224623	0.25698492	2.4501780	21	—	—
516280 2016 WK_{22}	16.2	X	325.94065	160.16465	254.18633	10.19147	0.0929961	0.18783269	3.0196407	21	11 1.3	20.1
516281 2016 WC_{25}	17.3	X	9.07061	325.27931	65.04675	3.00280	0.0756471	0.20226367	2.8742473	21	12 9.4	21.0
516282 2016 WY_{25}	17.5	X	286.36983	200.63039	44.78312	5.60353	0.0458898	0.27608611	2.3358217	21	1 23.9	20.6
516283 2016 WL_{27}	16.7	X	341.15046	193.49452	193.01453	12.32634	0.0427001	0.18352766	3.0666793	21	10 22.2	20.8
516284 2016 WS_{27}	17.0	X	57.15790	275.98180	127.77825	6.58264	0.1698835	0.24059483	2.5602273	21	—	—
516285 2016 WA_{29}	16.6	X	359.71317	281.81852	95.32450	11.04067	0.0559196	0.18975752	2.9991859	21	11 9.4	20.7
516286 2016 WD_{30}	16.5	X	351.68651	296.51570	87.61077	12.71771	0.1234476	0.19024860	2.9940225	21	11 10.6	20.2
516287 2016 WR_{30}	17.1	X	21.82427	228.85771	210.76420	14.14641	0.1108762	0.23289955	2.6163165	21	—	—
516288 2016 WL_{36}	17.4	X	14.39353	197.73636	254.78319	10.81761	0.0314393	0.23817314	2.5775526	21	—	—
516289 2016 WG_{37}	17.0	X	116.14504	260.06027	58.64878	11.81891	0.1402796	0.22952657	2.6418860	21	—	—
516290 2016 WM_{38}	16.2	X	314.64027	176.55510	239.71197	7.85179	0.0958886	0.18376313	3.0640591	21	10 16.3	20.1
516291 2016 WE_{40}	17.1	X	98.58553	270.74991	49.65142	5.47344	0.1172485	0.21996045	2.7179386	21	—	—
516292 2016 WZ_{42}	16.4	X	323.45449	141.64873	268.89019	8.10782	0.1193772	0.18673531	3.0314594	21	10 20.6	20.2
516293 2016 WE_{46}	18.1	X	205.18697	318.33134	33.89672	7.39583	0.1376851	0.30359011	2.1925237	21	3 6.9	21.4
516294 2016 WY_{47}	17.3	X	52.64172	27.45467	7.86955	3.98205	0.0354103	0.23087546	2.6315858	21	—	—
516295 2016 WY_{51}	16.9	X	67.34657	255.73565	127.59638	4.44278	0.1702176	0.23979205	2.5659382	21	—	—
516296 2016 WK_{52}	16.6	X	80.72480	106.84891	270.68232	4.67148	0.2224971	0.24096755	2.5575865	21	—	—
516297 2016 WC_{53}	16.8	X	69.82466	5.68677	21.83353	4.72035	0.1603453	0.23833049	2.5764179	21	—	—
516298 2016 WP_{53}	16.8	X	66.14697	287.39722	60.46809	13.17919	0.1700517	0.21688351	2.7435846	21	—	—
516299 2016 WO_{54}	16.7	X	328.84560	20.08878	82.73256	9.67585	0.1240848	0.21370029	2.7707625	21	—	—
516300 2016 XD_{4}	16.1	X	359.34065	289.73218	70.56864	27.44200	0.2083946	0.18453038	3.0555599	21	11 4.9	19.7
516301 2016 XL_{6}	16.1	X	283.80472	75.28974	37.89538	14.27911	0.2433247	0.18964654	3.0003558	21	10 26.1	19.7
516302 2016 XQ_{6}	16.2	X	348.64160	337.81235	46.25324	13.68420	0.1504736	0.18969531	2.9998416	21	11 3.1	19.4
516303 2016 XQ_{10}	16.9	X	318.48697	358.93752	86.18500	3.80152	0.0829125	0.19573210	2.9378392	21	12 3.5	20.4
516304 2016 XV_{10}	17.0	X	271.57236	57.90600	63.80467	9.83336	0.1720913	0.18851522	3.0123477	21	10 31.7	21.1
516305 2016 XK_{11}	16.9	X	343.64133	247.14105	129.86133	7.30433	0.1608618	0.17841220	3.1250215	21	10 15.8	20.4
516306 2016 XB_{15}	17.1	X	60.24475	292.65241	90.88644	1.52717	0.0548027	0.22051714	2.7133624	21	—	—
516307 2016 XQ_{16}	17.3	X	151.41503	60.50580	286.75378	6.64555	0.1520970	0.26727496	2.3868797	21	1 7.3	20.4
516308 2016 XH_{21}	17.5	X	159.92436	34.80358	1.68731	8.58257	0.0386314	0.30418958	2.1896422	21	3 4.9	20.1
516309 2016 YO_{4}	17.0	X	314.69049	146.70269	342.42636	32.28493	0.1546206	0.23192514	2.6236395	21	—	—
516310 2016 YT_{4}	17.2	X	245.99611	232.47640	359.76103	3.81758	0.0696158	0.24319506	2.5419454	21	—	—
516311 2016 YC_{7}	16.3	X	252.65605	232.67668	251.29500	8.06964	0.0315775	0.18306607	3.0718321	21	10 25.6	20.6
516312 2016 YF_{7}	17.2	X	338.46129	33.90973	95.89153	5.79890	0.1288352	0.23234311	2.6204920	21	—	—
516313 2016 YV_{9}	15.9	X	200.53908	67.01251	156.55874	9.82251	0.0723838	0.18680974	3.0306541	21	12 21.9	20.6
516314 2016 YE_{10}	15.3	X	179.71278	43.27965	137.81356	10.49130	0.1376822	0.14136424	3.6495810	21	10 7.6	21.2
516315 2016 YR_{11}	16.2	X	208.98728	52.69698	15.35280	2.89839	0.1938647	0.12376647	3.9878062	21	6 17.9	22.6
516316 2016 YC_{12}	16.0	X	278.12229	82.99255	21.55414	14.29645	0.1220932	0.17159881	3.2072036	21	10 20.5	20.4
516317 2016 YP_{13}	15.9	X	99.53394	263.34699	38.22096	16.19629	0.0809577	0.17310568	3.1885642	21	12 4.4	20.8
516318 2017 AX_{5}	16.6	X	39.84637	315.74547	85.04535	7.45228	0.0639642	0.20322099	2.8652136	21	—	—
516319 2017 AA_{7}	16.5	X	73.40587	316.22343	89.59599	7.80206	0.0929689	0.22584255	2.6705386	21	—	—
516320 2017 AP_{12}	16.4	X	285.76864	7.36187	118.48433	3.54700	0.0853163	0.18295595	3.0730646	21	12 4.6	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516321 2017 AU_{12}	16.3	X	1.07221	13.70764	100.51272	10.11220	0.0975464	0.21215860	2.7841691	21	—	—
516322 2017 AT_{14}	15.9	X	282.68464	23.65116	109.72709	10.91974	0.1262622	0.18393596	3.0621394	21	12 5.8	19.9
516323 2017 AJ_{20}	15.7	X	309.66976	348.64538	109.10294	14.18725	0.0418136	0.17736242	3.1373404	21	12 6.9	20.0
516324 2017 AZ_{21}	16.0	X	123.20328	244.56266	113.28529	14.14070	0.1070586	0.19699082	2.9253111	21	—	—
516325 2017 BR_{4}	16.8	X	352.86915	279.61417	178.36105	12.86021	0.1265668	0.22098561	2.7095264	21	—	—
516326 2017 BF_{10}	16.5	X	280.93197	7.79918	130.85375	9.88965	0.0808405	0.18245715	3.0786628	21	12 14.7	20.7
516327 2017 BM_{13}	16.8	X	63.77794	253.80010	138.76042	5.40682	0.0503966	0.21348798	2.7725992	21	—	—
516328 2017 BU_{15}	16.8	X	50.00942	223.32060	154.74799	4.80751	0.0278127	0.19175405	2.9783314	21	—	—
516329 2017 BY_{15}	15.8	X	126.05928	359.18944	271.66088	5.86170	0.0360688	0.16921464	3.2372588	21	11 25.0	20.5
516330 2017 BC_{19}	16.9	X	269.78533	342.27322	164.73294	3.82077	0.0584150	0.18054986	3.1003063	21	12 12.0	21.1
516331 2017 BP_{20}	16.3	X	87.85358	109.15733	226.26493	2.58360	0.0678295	0.18249211	3.0782696	21	—	—
516332 2017 BZ_{32}	16.4	X	3.54194	248.92537	132.97798	5.90271	0.1433942	0.17917881	3.1161017	21	11 23.9	20.1
516333 2017 BP_{33}	16.4	X	251.17264	50.63823	124.51146	11.94969	0.1867608	0.17497452	3.1658197	21	12 5.9	21.1
516334 2017 BS_{41}	16.2	X	307.50625	312.72622	142.33025	9.99889	0.0561885	0.17408468	3.1765987	21	11 29.3	20.6
516335 2017 BD_{44}	16.0	X	295.89712	275.09745	187.74598	3.73672	0.1374833	0.17223153	3.1993440	21	11 12.4	19.9
516336 2017 BZ_{45}	16.2	X	63.52129	262.07665	103.47026	10.63288	0.0441034	0.19051424	2.9912388	21	—	—
516337 2017 BV_{51}	16.6	X	289.68120	357.88894	111.60209	3.53306	0.0788838	0.16804244	3.2522960	21	11 18.1	20.9
516338 2017 BO_{52}	16.3	X	88.88792	318.35638	22.00840	5.14405	0.0250997	0.18564995	3.0432631	21	—	—
516339 2017 BL_{63}	16.5	X	19.32350	304.91230	93.18944	12.14602	0.0341196	0.18641429	3.0349386	21	12 24.7	20.5
516340 2017 BH_{64}	16.4	X	53.80983	314.70081	84.41130	9.02531	0.1259099	0.21113025	2.7932024	21	—	—
516341 2017 BZ_{64}	16.2	X	20.49049	341.63767	81.09913	13.06303	0.0355487	0.19770235	2.9182881	21	—	—
516342 2017 BZ_{84}	16.5	X	327.83506	255.10832	192.31373	11.14377	0.0993981	0.17912539	3.1167212	21	12 16.3	20.5
516343 2017 BH_{86}	13.8	X	268.82501	43.63669	314.58098	29.58288	0.0325886	0.08408486	5.1600929	21	6 15.8	21.0
516344 2017 BL_{87}	15.8	X	204.69201	75.72913	162.37722	17.30700	0.2022842	0.17229695	3.1985341	21	12 28.9	21.3
516345 2017 BW_{87}	16.2	X	320.34749	17.32877	42.38779	5.45588	0.1285287	0.16966877	3.2314798	21	10 27.3	20.0
516346 2017 BS_{90}	16.8	X	65.49535	305.27702	89.49474	7.06911	0.0573980	0.21456328	2.7633281	21	—	—
516347 2017 BB_{92}	13.5	X	346.58250	217.37600	67.38143	28.64716	0.0352733	0.08013229	5.3284104	21	6 17.4	20.4
516348 2017 BK_{94}	17.2	X	207.99165	74.59389	159.01290	2.23762	0.0237114	0.19851707	2.9102981	21	—	—
516349 2017 BO_{99}	16.9	X	340.25384	319.72059	132.54406	5.78566	0.0905776	0.19208062	2.9749547	21	—	—
516350 2017 BQ_{99}	16.6	X	65.75892	279.69548	114.75765	7.18218	0.0577474	0.21081845	2.7959558	21	—	—
516351 2017 BV_{99}	16.8	X	260.35197	200.74274	91.65340	6.77375	0.1003445	0.26285998	2.4135321	21	2 20.8	20.3
516352 2017 BA_{105}	16.1	X	218.10848	111.92378	87.58108	7.41342	0.0632056	0.17920638	3.1157820	21	12 12.1	20.5
516353 2017 BG_{106}	16.3	X	78.67817	248.10229	94.87556	11.30218	0.0952313	0.19057877	2.9905635	21	—	—
516354 2017 BJ_{112}	14.1	X	137.85517	51.00285	77.17028	8.75550	0.0682518	0.08225680	5.2362639	21	6 21.2	21.3
516355 2017 BD_{114}	16.0	X	350.18712	11.58750	38.21378	16.01098	0.0979131	0.17604098	3.1530210	21	11 29.4	20.1
516356 2017 BR_{123}	16.1	X	215.53935	122.29831	82.50097	6.45607	0.0796534	0.18484145	3.0521308	21	12 14.5	20.5
516357 2017 BD_{127}	16.1	X	339.81013	134.88956	284.79513	8.51799	0.1344244	0.17903255	3.1177986	21	11 29.7	19.9
516358 2017 BE_{127}	16.7	X	334.58526	267.82073	177.42178	3.61560	0.0183551	0.18374972	3.0642081	21	12 23.5	20.9
516359 2017 BY_{127}	16.3	X	69.87205	197.92326	155.36362	4.37808	0.0967321	0.19061791	2.9901542	21	—	—
516360 2017 BK_{131}	16.9	X	134.43230	323.62077	33.44227	7.39423	0.1102158	0.22481781	2.6786475	21	1 3.9	20.7
516361 2017 CG_{2}	16.1	X	313.99545	313.17715	145.72719	11.43144	0.0750838	0.18048518	3.1010470	21	12 12.4	20.3
516362 2017 CS_{4}	15.6	X	96.88784	29.09608	279.63205	7.22392	0.0735070	0.17485286	3.1672880	21	12 12.3	20.2
516363 2017 CV_{5}	16.4	X	94.20157	274.59857	64.70595	9.59046	0.0738211	0.19111115	2.9850071	21	—	—
516364 2017 CX_{30}	16.3	X	93.69733	221.35843	146.22662	6.83530	0.0520029	0.21182482	2.7870931	21	—	—
516365 2017 CG_{34}	15.4	X	66.58157	332.82495	23.50580	21.91630	0.0309886	0.18189867	3.0849611	21	12 31.3	20.2
516366 2017 DP_{29}	16.4	X	120.36465	174.71826	150.68513	11.45842	0.0967568	0.18797349	3.0181326	21	—	—
516367 2017 DQ_{47}	16.2	X	188.36219	245.08182	21.70055	8.38970	0.1209295	0.18057171	3.1000562	21	—	—
516368 2017 DY_{52}	15.8	X	113.46583	353.81102	319.60683	14.11077	0.1029566	0.17857631	3.1231066	21	—	—
516369 2017 DQ_{88}	15.4	X	194.10965	176.97935	74.86304	15.65544	0.0310831	0.17768069	3.1335928	21	—	—
516370 2017 DE_{112}	16.1	X	341.38540	40.81695	21.08121	17.61311	0.2087057	0.18189295	3.0850258	21	12 5.5	19.6
516371 2017 DG_{116}	13.3	X	297.02017	97.75827	247.81227	17.15090	0.0322966	0.08413057	5.1582237	21	6 28.9	20.2
516372 2017 EK_{5}	15.5	X	179.78223	194.89647	70.69687	19.02951	0.1638109	0.17618274	3.1513294	21	—	—
516373 2017 FA_{42}	18.5	X	92.33388	39.54404	162.73953	4.68470	0.1501181	0.29766362	2.2215302	21	8 14.9	21.2
516374 2017 FQ_{67}	15.9	X	152.97469	193.33119	114.56358	10.79781	0.0730771	0.18042828	3.1016989	21	—	—
516375 2017 FR_{100}	13.8	X	215.71763	64.06982	345.86280	13.91840	0.1117768	0.08260036	5.2217341	21	6 6.3	21.3
516376 2017 FD_{104}	17.3	X	53.84335	265.11874	288.56852	4.72216	0.1075661	0.26065471	2.4271260	21	5 27.9	19.8
516377 2017 HQ_{11}	15.6	X	67.96942	318.94792	110.25093	15.79688	0.0093547	0.18631189	3.0360506	21	1 4.4	19.9
516378 2017 RT_{3}	17.2	X	61.84313	228.15901	70.34735	4.17152	0.1151799	0.26901226	2.3765922	21	11 10.8	20.3
516379 2017 SN_{34}	16.7	X	339.09506	43.54986	281.22951	11.64387	0.1971911	0.23437106	2.6053539	21	7 20.6	19.0
516380 2017 WG_{26}	16.6	X	335.08023	247.35671	111.18291	13.27498	0.1959017	0.22814306	2.6525559	21	9 10.9	19.2
516381 2018 CY_{7}	15.6	X	271.09193	296.52854	132.25421	26.46947	0.1101587	0.17360208	3.1824830	21	9 2.3	20.2
516382 2018 CK_{8}	15.8	X	258.66053	118.59969	335.01777	7.88042	0.0531054	0.17472983	3.1687746	21	9 21.3	20.4
516383 2018 CO_{9}	16.6	X	258.07755	55.72377	101.68768	10.62150	0.1921096	0.21526887	2.7572865	21	11 29.0	20.3
516384 2018 CS_{9}	15.7	X	325.48398	121.23089	337.95021	21.31469	0.0491434	0.23156457	2.6263623	21	—	—
516385 2018 CX_{11}	17.5	X	24.80655	357.98638	84.26764	2.51166	0.1540178	0.27036397	2.3686642	21	—	—
516386 2018 DX	13.3	X	264.57748	43.34786	308.29529	21.07844	0.0534902	0.08502505	5.1219829	21	5 26.4	20.4
516387 1995 UL_{66}	16.1	X	297.55928	159.98289	56.57667	14.24853	0.1320961	0.24147412	2.5540084	21	—	—
516388 1996 AG_{15}	16.8	X	167.00727	217.83005	109.46118	12.84845	0.1268014	0.23413010	2.6071412	21	1 2.9	20.7
516389 1996 BX_{11}	16.4	X	228.37840	107.71674	116.59252	11.14986	0.0257626	0.22670901	2.6637300	21	—	—
516390 1996 TZ_{46}	17.1	X	169.48333	88.70233	224.45029	7.99066	0.1666931	0.21390494	2.7689950	21	—	—
516391 1997 LG_{5}	16.7	X	168.86671	143.65704	117.39778	10.15601	0.2293979	0.18396844	3.0617790	21	12 26.7	22.0
516392 1999 VH_{136}	18.3	X	13.57526	272.46430	50.98319	22.21149	0.0896013	0.40155460	1.8195877	21	10 30.7	19.6
516393 2000 AB_{22}	15.5	X	354.13301	324.49637	85.72275	18.95170	0.1903790	0.17906003	3.1174795	21	12 17.1	18.9
516394 2000 BT_{9}	17.2	X	285.40842	56.23477	133.93909	11.23682	0.1194655	0.22630544	2.6668959	21	—	—
516395 2000 CS_{150}	17.1	X	72.56695	58.67128	311.45405	3.87717	0.0464457	0.22421083	2.6834797	21	—	—
516396 2000 WY_{28}	20.1	X	294.55297	357.37798	63.30566	19.44690	0.2895015	0.46989652	1.6385809	21	11 30.8	17.4
516397 2001 FK_{126}	17.4	X	226.30175	124.18502	144.05998	6.63546	0.2066804	0.23348945	2.6119080	21	—	—
516398 2001 HW_{15}	20.3	X	238.52777	194.81373	56.50018	18.98607	0.2528328	0.52315994	1.5253859	21	—	—
516399 2001 QH_{55}	17.4	X	215.28924	195.62014	140.78745	13.62367	0.2344594	0.27795487	2.3253403	21	2 25.7	21.3
516400 2001 SM_{222}	18.6	X	220.77873	295.85586	35.40965	3.11302	0.2341723	0.27678624	2.3318810	21	2 23.9	22.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516401 2001 SN_{284}	17.9	X	62.82242	241.52380	192.31259	6.24891	0.1546433	0.26566423	2.3965178	21	—	—
516402 2001 TJ_{129}	18.6	X	279.70590	188.98502	202.07680	21.64383	0.0345800	0.39271116	1.8468029	21	8 9.2	20.9
516403 2001 UR_{19}	18.4	X	243.14514	224.58439	196.82144	21.21638	0.0831287	0.38900395	1.8585177	21	7 22.0	21.0
516404 2001 US_{229}	18.2	X	236.01361	211.29440	102.59682	3.47051	0.2478449	0.27751815	2.3277792	21	2 13.9	22.3
516405 2002 AC_{33}	18.6	X	336.43953	33.14443	119.23596	7.41879	0.1722481	0.25378980	2.4706996	21	—	—
516406 2002 CZ_{44}	18.4	X	6.97169	163.21695	137.39417	23.22917	0.0796363	0.37902536	1.8909957	21	8 26.3	19.5
516407 2002 GM_{53}	16.4	X	238.02017	228.73528	306.62514	7.59820	0.1758692	0.18650932	3.0339076	21	11 21.1	21.1
516408 2002 GB_{192}	15.2	X	141.81497	37.74112	190.37899	2.49165	0.1142703	0.12552568	3.9504599	21	10 22.2	21.3
516409 2002 JG_{93}	17.3	X	261.54522	182.60206	53.64282	9.58204	0.1740695	0.24355919	2.5394112	21	—	—
516410 2002 MY_{3}	16.0	X	167.86165	131.46530	182.29310	19.75774	0.4324256	0.17969194	3.1101665	21	1 12.6	22.2
516411 2002 OZ_{37}	17.2	X	250.20124	277.63750	336.98038	5.12636	0.2217414	0.23840500	2.5758811	21	—	—
516412 2002 PM_{138}	17.3	X	232.41869	134.55980	168.43439	12.16490	0.2880031	0.24008435	2.5638551	21	1 30.2	22.1
516413 2002 QK_{52}	18.5	X	252.75054	180.22855	138.07305	2.65535	0.1697754	0.29646292	2.2275243	21	3 6.5	21.9
516414 2002 RF_{244}	18.2	X	207.74468	178.94453	169.11695	3.65653	0.1945526	0.29289836	2.2455605	21	3 2.6	21.8
516415 2002 RX_{270}	17.5	X	255.53736	111.72617	161.87257	16.70919	0.2185956	0.24013720	2.5634789	21	1 15.9	22.1
516416 2002 TC_{307}	17.6	X	249.22918	263.56107	51.34674	8.83195	0.1425237	0.29225358	2.2488621	21	3 5.0	21.0
516417 2002 UD_{5}	17.3	X	133.69602	0.76153	32.59647	25.23327	0.2053006	0.28417776	2.2912686	21	3 7.5	21.1
516418 2002 VH_{12}	17.2	X	185.58929	297.10024	32.13267	5.25857	0.3311173	0.23223932	2.6212727	21	2 3.9	22.1
516419 2002 VU_{149}	14.1	X	208.37593	3.05014	50.71209	19.34015	0.1062042	0.08248496	5.2266032	21	6 3.2	21.5
516420 2003 FS_{2}	18.8	X	310.20011	27.80204	191.98134	13.35826	0.5034008	0.26295128	2.4129733	21	—	—
516421 2003 GU_{21}	19.1	X	318.36093	330.69483	29.40132	22.25631	0.0463808	0.39590091	1.8368698	21	9 19.2	20.9
516422 2003 GX_{24}	19.0	X	213.50922	61.29980	26.02121	22.17461	0.0587982	0.39456836	1.8410032	21	8 12.7	21.6
516423 2003 JC_{11}	18.5	X	251.73078	71.01592	74.27830	21.01972	0.5583203	0.19664880	2.9287019	21	10 3.8	24.1
516424 2003 JP_{18}	17.9	X	357.64246	117.44041	15.43775	2.25484	0.1284019	0.26122780	2.4235750	21	—	—
516425 2003 SW_{34}	17.1	X	43.55354	236.02389	165.59170	6.43227	0.2211578	0.23245828	2.6196265	21	—	—
516426 2003 SB_{435}	16.5	X	217.79249	354.50845	281.48005	13.36055	0.1676889	0.24404832	2.5360170	21	—	—
516427 2003 TH_{8}	16.1	X	182.79086	265.25480	26.74342	16.17376	0.3573395	0.18810708	3.0167035	21	—	—
516428 2003 UR_{12}	17.8	X	253.55794	122.26053	193.97607	60.47745	0.5671787	0.25991080	2.4317551	21	2 19.8	23.8
516429 2003 UR_{248}	16.2	X	114.18609	128.01133	204.24427	26.75677	0.1541072	0.17934367	3.1141917	21	—	—
516430 2003 UV_{280}	17.8	X	244.55333	345.94474	48.85660	22.86147	0.0807244	0.37109419	1.9178440	21	6 11.2	20.2
516431 2004 DZ	17.6	X	8.16397	38.15652	135.22160	25.22115	0.2660060	0.28514447	2.2860870	21	1 4.9	20.0
516432 2004 DT_{9}	17.4	X	103.48155	359.76565	42.33079	7.36440	0.0982968	0.28414685	2.2914347	21	1 4.5	20.0
516433 2004 EF_{82}	17.9	X	349.82946	106.89588	100.13092	5.93895	0.2393065	0.28658080	2.2784421	21	1 24.9	20.2
516434 2004 EA_{115}	18.2	X	357.71129	192.23839	347.45840	4.00772	0.1109671	0.28620428	2.2804399	21	1 20.2	20.5
516435 2004 FJ_{29}	21.3	X	33.05512	210.26184	195.43162	33.43988	0.3491125	1.12928271	0.9132737	21	—	—
516436 2004 FK_{38}	16.7	X	274.94155	184.49510	338.59513	7.73152	0.2332089	0.21235621	2.7824416	21	12 22.2	19.9
516437 2004 GN_{15}	17.7	X	89.15048	94.34015	88.31578	24.05414	0.0964558	0.35383897	1.9796980	21	7 3.7	19.7
516438 2004 JA_{8}	18.2	X	230.56325	251.64478	67.55850	3.52532	0.2283160	0.27798125	2.3251932	21	2 17.1	22.1
516439 2004 QY_{27}	17.2	X	130.53646	148.06505	166.61741	2.01523	0.1309934	0.19417603	2.9535136	21	—	—
516440 2004 RZ_{160}	16.9	X	122.51364	2.95286	323.78222	1.55947	0.1364481	0.19246202	2.9710231	21	—	—
516441 2004 SY_{56}	17.7	X	195.61658	286.39251	50.05327	3.58303	0.2133692	0.26440047	2.4041482	21	2 11.6	21.7
516442 2004 TV_{185}	15.9	X	298.73377	268.12297	212.65622	8.20955	0.0705499	0.18240461	3.0792539	21	12 17.1	20.0
516443 2004 TY_{198}	16.3	X	50.85756	304.30366	44.06572	1.82381	0.1875176	0.18025700	3.1036635	21	12 23.6	20.6
516444 2004 TM_{199}	16.2	X	3.57068	198.77507	197.64384	9.77290	0.0383528	0.17884157	3.1200178	21	12 2.2	20.5
516445 2004 WO_{8}	15.9	X	338.59267	336.52122	60.10026	18.14073	0.1992722	0.17126876	3.2113226	21	11 1.3	19.4
516446 2004 XP_{40}	18.2	X	234.75754	357.00709	62.66498	22.77390	0.0894747	0.39421727	1.8420961	21	7 11.1	20.5
516447 2005 AP_{16}	16.8	X	307.26756	52.86744	110.36189	28.59383	0.2452079	0.23601249	2.5932600	21	—	—
516448 2005 AN_{44}	17.3	X	345.06540	152.97573	309.15225	2.63428	0.1970390	0.23502881	2.6004908	21	—	—
516449 2005 CE_{11}	17.4	X	267.71176	90.41570	122.43171	7.66059	0.1845603	0.23278546	2.6171713	21	—	—
516450 2005 CY_{41}	17.6	X	47.04630	313.56593	102.99638	6.60453	0.2201338	0.23823117	2.5771339	21	—	—
516451 2005 EZ_{167}	18.5	X	140.40535	96.16687	354.47039	20.05587	0.1064894	0.37376642	1.9086920	21	4 15.3	20.9
516452 2005 ET_{211}	17.8	X	288.39846	38.14932	159.69603	4.30488	0.1950174	0.23316292	2.6143460	21	—	—
516453 2005 EB_{253}	16.7	X	290.93629	41.69052	157.26202	12.33562	0.2933069	0.23031767	2.6358329	21	—	—
516454 2005 FN_{4}	18.6	X	247.88406	105.70107	190.50187	29.32032	0.7639760	0.22654304	2.6650308	21	1 19.4	25.3
516455 2005 GC_{36}	17.0	X	42.78276	56.89298	359.63913	21.98194	0.0765109	0.23000537	2.6382184	21	—	—
516456 2005 GK_{93}	16.9	X	270.09412	149.85777	69.57478	15.67575	0.2184633	0.23001747	2.6381258	21	—	—
516457 2005 HM_{3}	19.8	X	163.45342	4.21688	209.20738	28.32573	0.3101774	0.45330058	1.6783345	21	11 22.8	22.5
516458 2005 JP_{147}	18.3	X	20.53567	65.59046	216.49355	22.02979	0.1316286	0.37595937	1.9012626	21	8 15.6	20.3
516459 2005 LP_{7}	17.0	X	217.93616	214.50877	67.42255	6.32886	0.2808549	0.22472856	2.6793567	21	—	—
516460 2005 LW_{7}	18.5	X	286.86336	323.87573	345.78820	4.44465	0.3980745	0.29716183	2.2240303	21	3 6.4	22.4
516461 2005 LF_{8}	18.5	X	288.05690	297.29512	21.13769	2.66643	0.3905957	0.29782512	2.2207270	21	3 19.3	22.0
516462 2005 LF_{38}	18.2	X	268.97656	211.72849	107.68863	8.40947	0.2669042	0.29827626	2.2184872	21	3 18.9	21.8
516463 2005 MW_{13}	16.6	X	221.33546	157.41892	102.41569	14.27346	0.1301814	0.22304689	2.6928073	21	—	—
516464 2005 ML_{24}	18.4	X	249.68853	28.40119	294.35875	3.24816	0.1763218	0.29184383	2.2509666	21	3 7.3	21.7
516465 2005 MQ_{41}	18.2	X	278.65815	333.66331	305.53133	5.72225	0.1647639	0.29150998	2.2526848	21	2 9.8	21.4
516466 2005 NV_{81}	16.4	X	334.26356	317.53835	308.43692	7.51073	0.0307878	0.17459474	3.1704089	21	5 6.0	20.8
516467 2005 OM_{20}	18.2	X	265.97934	173.75738	118.73898	6.03019	0.1688592	0.28990959	2.2609675	21	2 15.8	21.4
516468 2005 QY_{12}	16.7	X	149.73990	184.43876	162.75467	13.49903	0.2253546	0.21326473	2.7745338	21	1 21.3	21.3
516469 2005 QU_{55}	18.3	X	245.40205	173.06612	154.92197	3.10593	0.2324269	0.28918932	2.2647202	21	3 9.3	21.9
516470 2005 SV_{14}	17.9	X	254.98918	102.01058	203.37175	4.52866	0.1709336	0.28646170	2.2790735	21	2 19.1	21.4
516471 2005 SV_{71}	18.0	X	179.87897	236.02713	112.28196	2.73772	0.1775327	0.27944034	2.3170922	21	2 7.7	21.4
516472 2005 SF_{140}	17.0	X	100.08583	318.65261	26.69448	8.49211	0.1407445	0.20135650	2.8828737	21	—	—
516473 2005 TY_{12}	17.9	X	209.68839	132.33020	214.12292	4.88067	0.1855993	0.28246503	2.3005213	21	3 1.6	21.6
516474 2005 TF_{31}	17.4	X	151.58364	146.13919	155.12588	2.49683	0.0463827	0.20264755	2.8706163	21	—	—
516475 2005 TS_{51}	17.9	X	213.96990	161.19175	211.20178	23.50982	0.0969877	0.34837263	2.0003533	21	4 1.4	20.6
516476 2005 TS_{86}	19.7	X	246.12769	251.65478	195.98546	8.43875	0.1930898	0.42774787	1.7445261	21	8 26.0	21.2
516477 2005 TH_{113}	17.0	X	339.95639	50.47786	8.52248	11.28779	0.0864888	0.19063561	2.9899690	21	11 28.5	20.9
516478 2005 UP_{4}	16.3	X	268.49627	287.12436	164.88245	23.71405	0.4165547	0.17402082	3.1773758	21	8 14.1	21.5
516479 2005 UX_{31}	16.2	X	221.71044	313.48899	219.17796	14.20058	0.1474977	0.18559656	3.0438466	21	11 6.1	20.8
516480 2005 UK_{36}	17.1	X	301.52366	239.50120	224.31410	4.61645	0.0749725	0.18755835	3.0225845	21	12 1.1	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516481 2005 UL_{87}	18.3	X	249.38142	113.24945	197.78119	5.74183	0.1497620	0.28294828	2.2979012	21	2 22.4	21.9
516482 2005 UR_{88}	18.4	X	229.07672	102.92495	195.71303	2.82270	0.1406452	0.27719285	2.3296000	21	1 20.7	22.0
516483 2005 UR_{120}	16.7	X	5.63210	42.39559	13.23410	10.00631	0.0954684	0.19170123	2.9788784	21	—	—
516484 2005 UT_{140}	18.2	X	274.35364	235.76446	41.20204	8.47157	0.1608903	0.28064534	2.3104549	21	2 8.9	21.7
516485 2005 UJ_{160}	17.3	X	237.68594	138.42743	173.99003	6.74136	0.1988435	0.28277560	2.2988366	21	2 12.0	21.1
516486 2005 UZ_{219}	17.7	X	213.14468	328.00176	13.51496	6.11781	0.1006859	0.28019658	2.3129212	21	3 2.2	21.0
516487 2005 UO_{281}	16.8	X	279.14375	265.44761	216.19931	5.97457	0.1033358	0.18687659	3.0299313	21	11 18.7	20.8
516488 2005 UV_{295}	18.3	X	68.95722	27.12354	40.39934	8.18881	0.0669818	0.26647323	2.3916649	21	—	—
516489 2005 UB_{307}	16.4	X	354.15910	344.37762	47.52999	16.33324	0.1635626	0.18513770	3.0488739	21	11 20.8	19.9
516490 2005 UK_{474}	17.6	X	181.77728	282.72376	61.67946	7.52217	0.1518812	0.27603321	2.3361201	21	2 5.5	21.2
516491 2005 VH_{43}	17.9	X	74.47788	257.15850	184.12978	8.41469	0.2088617	0.26916718	2.3756802	21	1 27.5	20.0
516492 2005 VW_{64}	18.0	X	273.31883	235.14319	67.05114	4.67141	0.2354696	0.28706790	2.2758640	21	3 3.2	21.5
516493 2005 WR_{35}	17.8	X	137.98386	125.79748	254.99681	1.51529	0.1884733	0.27060889	2.3672348	21	2 7.5	20.9
516494 2005 WH_{49}	18.3	X	17.56172	114.22144	9.22561	1.19923	0.1428594	0.26276543	2.4141110	21	—	—
516495 2005 WU_{164}	17.8	X	208.28577	268.43117	67.38149	5.64005	0.2010119	0.27831137	2.3233542	21	2 20.4	21.6
516496 2005 WT_{166}	18.4	X	9.96577	309.13104	190.88309	0.89567	0.1238974	0.26507375	2.4000755	21	—	—
516497 2005 WP_{210}	16.8	X	316.28242	352.43683	88.86793	10.18195	0.0698953	0.18299476	3.0726301	21	11 24.8	20.7
516498 2005 YZ_{25}	18.4	X	32.55554	165.89295	293.60100	0.84129	0.1546463	0.25846517	2.4408141	21	—	—
516499 2005 YW_{133}	16.5	X	337.52587	44.84438	33.75090	5.68256	0.1008143	0.18342575	3.0678151	21	12 20.8	20.4
516500 2005 YM_{134}	16.0	X	236.73073	107.14912	81.89233	12.17112	0.1088157	0.18134028	3.0912908	21	12 15.2	20.3
516501 2005 YN_{171}	16.4	X	296.71671	50.98773	54.01546	15.06678	0.2351914	0.18043481	3.1016241	21	11 5.9	19.9
516502 2005 YE_{263}	16.0	X	162.65183	123.58449	117.42384	17.12012	0.0582812	0.17884050	3.1200302	21	12 5.1	20.9
516503 2006 AK_{25}	16.9	X	234.70200	55.47496	102.70007	10.59022	0.0563284	0.17743079	3.1365344	21	11 15.5	21.5
516504 2006 AC_{29}	16.9	X	280.42283	300.56236	170.92577	1.10891	0.1591892	0.17796074	3.1303045	21	10 29.2	21.0
516505 2006 AC_{38}	17.6	X	32.51626	349.12608	119.29435	12.78164	0.2129871	0.25922493	2.4360425	21	—	—
516506 2006 AC_{108}	17.6	X	277.07034	323.98417	269.76842	1.42519	0.1321448	0.25707911	2.4495794	21	—	—
516507 2006 BV_{30}	15.9	X	291.39310	316.66963	130.11477	27.02960	0.1217219	0.17294964	3.1904819	21	10 28.6	20.6
516508 2006 BV_{100}	17.8	X	87.32497	332.51834	73.60556	2.00941	0.2054191	0.26017441	2.4301122	21	1 5.6	20.1
516509 2006 BU_{106}	17.0	X	234.13945	76.07428	106.10145	2.36417	0.1766852	0.17658351	3.1465595	21	11 25.6	21.7
516510 2006 BS_{182}	16.2	X	306.86180	279.63341	145.04460	26.41096	0.1961019	0.17162615	3.2068630	21	10 10.3	20.4
516511 2006 BP_{234}	18.1	X	354.96412	61.08421	68.30765	2.19212	0.1308043	0.25431592	2.4672908	21	—	—
516512 2006 BJ_{249}	16.9	X	286.31755	122.67981	342.42845	5.48234	0.1451531	0.17398224	3.1778454	21	10 28.5	21.1
516513 2006 CX_{68}	16.1	X	183.76943	84.79480	142.68783	19.59208	0.1380850	0.17367561	3.1815847	21	12 6.6	21.5
516514 2006 DE_{17}	16.8	X	256.45086	139.93140	352.65332	9.81901	0.1420955	0.17236017	3.1977519	21	10 22.4	21.5
516515 2006 DP_{173}	16.3	X	188.03815	208.45262	26.22860	3.01625	0.0520062	0.17237120	3.1976156	21	12 20.2	21.1
516516 2006 DQ_{205}	16.6	X	165.23157	252.73227	342.18056	9.79612	0.0665159	0.17044278	3.2216892	21	11 23.3	21.6
516517 2006 ES_{2}	13.4	X	68.13561	214.00497	347.62515	18.48194	0.0913208	0.08223244	5.2372979	21	7 4.6	20.4
516518 2006 HJ_{4}	18.3	X	259.13644	130.08308	108.58159	4.46795	0.2290498	0.24389864	2.5370545	21	—	—
516519 2006 HS_{26}	17.8	X	280.40082	15.41217	191.65826	12.69256	0.1995740	0.24264321	2.5457981	21	—	—
516520 2006 KS_{25}	17.9	X	275.88922	344.40296	235.00734	6.50398	0.1324104	0.24275265	2.5450329	21	—	—
516521 2006 KE_{105}	17.6	X	277.36201	44.44345	190.81655	13.19601	0.1681948	0.24451613	2.5327814	21	—	—
516522 2006 QC_{102}	18.0	X	200.73196	125.18670	174.89056	4.56893	0.1893124	0.23116768	2.6293676	21	1 5.4	22.5
516523 2006 QX_{145}	16.6	X	208.37452	246.96872	348.68826	16.86488	0.0711145	0.21863401	2.7289206	21	—	—
516524 2006 RE_{7}	17.3	X	183.11518	302.60978	14.15750	12.64218	0.2718796	0.22724665	2.6595269	21	1 18.7	22.2
516525 2006 RG_{11}	17.4	X	202.95959	117.65432	195.71714	5.63498	0.2791068	0.23292918	2.6160947	21	1 23.5	22.2
516526 2006 RB_{42}	16.8	X	115.43966	157.03361	191.71234	5.89889	0.0180765	0.21753888	2.7380715	21	—	—
516527 2006 RC_{77}	17.4	X	9.44876	262.07852	166.07419	6.55212	0.0459001	0.21256131	2.7806515	21	—	—
516528 2006 RJ_{93}	16.7	X	178.24212	303.54185	5.71092	15.94352	0.1937846	0.22496180	2.6775044	21	—	—
516529 2006 SK_{4}	17.0	X	229.07023	24.86066	271.12019	3.91722	0.2907410	0.23503084	2.6004758	21	1 21.6	21.8
516530 2006 SZ_{20}	18.4	X	302.23216	141.33102	159.62247	2.03621	0.1632353	0.31518745	2.1384057	21	4 6.9	20.6
516531 2006 SF_{22}	17.8	X	209.25060	217.33021	104.09825	6.71052	0.3383284	0.23476354	2.6024493	21	2 8.7	22.7
516532 2006 SK_{100}	17.3	X	302.06121	6.46128	183.72876	6.15152	0.0754483	0.22406320	2.6846584	21	—	—
516533 2006 SJ_{110}	16.5	X	128.32366	323.48097	35.57351	14.20890	0.2659013	0.22280242	2.6947767	21	1 23.3	20.8
516534 2006 SO_{140}	18.1	X	240.48017	3.55361	31.43815	22.15337	0.0912185	0.38309154	1.8775911	21	6 1.8	20.6
516535 2006 SZ_{155}	17.7	X	237.80907	24.07842	251.16541	5.64990	0.2876397	0.23692262	2.5866144	21	1 3.7	22.5
516536 2006 SF_{220}	18.5	X	202.14089	267.22363	175.69362	20.06951	0.1044877	0.38503877	1.8712554	21	7 1.2	21.3
516537 2006 SN_{227}	17.3	X	204.11492	54.03109	241.61998	4.27086	0.1545806	0.22768581	2.6561060	21	1 2.7	21.6
516538 2006 SV_{237}	17.0	X	311.29827	302.03269	178.06546	9.93882	0.0756436	0.21044577	2.7992558	21	—	—
516539 2006 SN_{246}	18.8	X	282.39870	120.41364	159.87377	2.38362	0.1595343	0.30732541	2.1747219	21	2 13.8	21.9
516540 2006 SL_{269}	16.7	X	231.99344	204.94528	41.85043	9.53673	0.1184217	0.21729262	2.7401398	21	—	—
516541 2006 SX_{294}	18.3	X	253.42280	125.93329	194.24633	5.19800	0.2433991	0.30863983	2.1685431	21	3 2.0	21.8
516542 2006 SF_{312}	17.0	X	329.92614	255.14747	228.50027	4.48970	0.0713108	0.21373567	2.7704568	21	—	—
516543 2006 SH_{367}	17.0	X	84.86703	255.85881	124.75359	5.91977	0.1737403	0.21639307	2.7477285	21	—	—
516544 2006 SW_{374}	17.6	X	235.60074	130.05359	130.85139	9.85970	0.1415010	0.22374374	2.6872132	21	—	—
516545 2006 TY_{13}	16.7	X	178.52915	274.33226	39.13673	26.75230	0.2745950	0.22621949	2.6675713	21	1 10.7	21.8
516546 2006 TK_{89}	18.0	X	191.49614	336.53699	16.11571	5.94704	0.1969265	0.29792033	2.2202538	21	2 24.1	21.5
516547 2006 TG_{106}	18.8	X	342.04074	286.90704	26.51916	22.52495	0.0667027	0.38527094	1.8705036	21	8 9.5	21.0
516548 2006 UO_{76}	17.3	X	130.80128	291.19976	50.35032	5.49501	0.1193480	0.21811184	2.7332743	21	—	—
516549 2006 UL_{122}	17.2	X	183.42060	279.46621	40.90635	7.97620	0.2243783	0.22617912	2.6678887	21	1 19.5	21.8
516550 2006 UG_{286}	18.9	X	56.75880	70.40892	53.00721	1.78692	0.1435830	0.29121303	2.2542159	21	2 13.8	20.7
516551 2006 VR_{11}	17.3	X	113.65220	128.37705	237.12154	4.06175	0.1445109	0.21689167	2.7435158	21	—	—
516552 2006 VT_{46}	17.3	X	54.36140	4.85810	9.53335	2.42270	0.0678777	0.20598745	2.8395022	21	—	—
516553 2006 VT_{66}	16.3	X	24.07828	340.40902	55.78991	16.26402	0.1371511	0.20494808	2.8490943	21	—	—
516554 2006 VH_{136}	18.3	X	255.26423	60.54770	249.71737	2.55874	0.1737572	0.30006932	2.2096407	21	2 24.0	21.8
516555 2006 VZ_{137}	17.0	X	355.79628	7.77377	74.32394	7.17417	0.0669021	0.20428352	2.8552699	21	—	—
516556 2006 WG_{3}	18.4	X	241.14678	315.74602	59.09921	23.14929	0.1250162	0.37579515	1.9018165	21	5 9.7	20.6
516557 2006 WW_{123}	17.3	X	98.74984	69.86264	108.31527	24.34394	0.0661925	0.36010651	1.9566602	21	7 7.5	19.0
516558 2006 WY_{170}	16.9	X	125.42932	276.24536	77.29547	6.87839	0.0318625	0.21248575	2.7813107	21	—	—
516559 2006 XG_{56}	17.9	X	192.10017	11.17110	91.68529	23.48986	0.0935370	0.37826698	1.8935223	21	7 21.0	20.2
516560 Annapolisroyal	16.9	X	291.90201	10.59531	173.84053	17.07037	0.1479812	0.21352749	2.7722572	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516561 2006 YZ_{35}	18.3	X	337.37379	168.15802	22.92242	3.29660	0.1428300	0.27941247	2.3172463	21	1 1.2	21.0
516562 2007 BF_{61}	18.2	X	354.34758	198.60868	115.56826	23.34610	0.0647615	0.37770666	1.8953945	21	8 26.6	19.9
516563 2007 BW_{69}	18.5	X	13.89423	32.36677	93.18328	0.49346	0.2549361	0.27411716	2.3469935	21	—	—
516564 2007 CS_{37}	17.5	X	277.37821	355.73958	105.28620	2.49363	0.2937413	0.18682580	3.0304804	21	9 23.6	21.5
516565 2007 DH_{30}	17.9	X	298.13192	92.90473	148.99191	6.80785	0.2027198	0.27373561	2.3491740	21	1 12.5	21.4
516566 2007 DH_{36}	18.2	X	336.04620	42.53274	158.75818	4.31059	0.1394841	0.27457508	2.3443834	21	1 14.1	21.1
516567 2007 DY_{92}	18.5	X	12.84018	9.71867	146.91127	3.27680	0.2064879	0.27739927	2.3284442	21	—	—
516568 2007 DC_{94}	16.8	X	255.80990	20.46462	138.11099	10.47255	0.1447476	0.18597806	3.0396826	21	11 29.5	21.2
516569 2007 DJ_{101}	18.3	X	14.34438	8.21195	119.72831	3.14800	0.1683293	0.27166252	2.3611101	21	—	—
516570 2007 DH_{112}	18.2	X	358.96152	280.61433	223.79890	1.54017	0.1416523	0.27022130	2.3694979	21	—	—
516571 2007 DL_{114}	18.3	X	339.88448	80.07949	89.79981	3.32394	0.1328276	0.27081249	2.3660482	21	—	—
516572 2007 DR_{117}	16.4	X	150.21059	108.86664	185.72794	10.63009	0.0872886	0.18752483	3.0229446	21	—	—
516573 2007 EQ_{8}	16.4	X	262.98360	324.31531	178.46490	17.88945	0.1394863	0.18295963	3.0730234	21	11 19.8	20.9
516574 2007 ES_{17}	18.5	X	314.99511	50.32800	166.27664	1.51932	0.1280977	0.27314105	2.3525818	21	1 9.1	21.4
516575 2007 EC_{40}	18.2	X	329.08790	88.73505	114.06895	3.15682	0.1453056	0.27256001	2.3559241	21	1 6.7	20.8
516576 2007 EP_{58}	16.2	X	110.34338	338.48486	324.58996	16.87734	0.0768914	0.18790932	3.0188196	21	12 24.1	21.0
516577 2007 ER_{73}	18.5	X	22.83717	93.56807	38.15500	1.74508	0.1396646	0.27401387	2.3475833	21	—	—
516578 2007 EG_{103}	18.3	X	39.91699	93.19547	34.32630	1.88290	0.0774308	0.27552959	2.3389659	21	1 21.8	20.7
516579 2007 EZ_{125}	16.9	X	210.59342	31.50976	177.10926	10.84451	0.2047995	0.18261380	3.0769020	21	12 2.9	22.0
516580 2007 EE_{128}	18.1	X	331.92853	7.02672	184.70033	1.34643	0.1271981	0.27298722	2.3534655	21	—	—
516581 2007 ED_{130}	18.1	X	331.31670	23.95677	181.22888	1.04521	0.1309344	0.27428734	2.3460227	21	1 14.6	21.0
516582 2007 EP_{167}	17.9	X	322.42871	342.44902	217.69950	2.02742	0.2326771	0.27151844	2.3619453	21	—	—
516583 2007 EZ_{176}	16.4	X	178.38276	16.70996	195.27747	28.16415	0.1183922	0.17538924	3.1608271	21	11 12.5	21.7
516584 2007 EQ_{177}	16.8	X	215.10028	349.85323	203.47704	17.23973	0.1360397	0.17925837	3.1151795	21	11 24.8	21.7
516585 2007 ES_{219}	16.7	X	203.63722	21.64251	179.18207	4.46769	0.2139819	0.17722252	3.1389913	21	11 16.5	21.9
516586 2007 FE_{25}	18.4	X	348.51212	142.26469	15.56857	1.54857	0.1235606	0.26930488	2.3748703	21	—	—
516587 2007 FX_{36}	16.8	X	220.27152	62.10180	134.87037	6.03299	0.0644558	0.18092827	3.0959821	21	12 12.2	21.3
516588 2007 FY_{45}	18.2	X	54.18238	20.16566	199.43510	21.14301	0.0486773	0.35943971	1.9590793	21	6 24.6	20.6
516589 2007 FZ_{45}	18.4	X	281.07707	9.08738	236.13950	1.47443	0.1779102	0.26770731	2.3843091	21	1 3.8	22.1
516590 2007 GX_{42}	18.2	X	265.64513	227.59674	32.08983	1.74992	0.1628143	0.26555404	2.3971807	21	1 8.9	21.8
516591 2007 GQ_{50}	17.9	X	309.83575	5.84568	217.20051	6.86660	0.0698568	0.26882593	2.3776902	21	1 18.7	21.0
516592 2007 GQ_{66}	16.5	X	186.58184	19.11079	217.04230	10.00755	0.1753553	0.17630820	3.1498343	21	12 13.6	21.7
516593 2007 HA_{36}	16.7	X	150.77591	200.31742	65.86808	2.33635	0.1428188	0.17365164	3.1818775	21	12 17.9	21.9
516594 2007 HU_{66}	17.7	X	308.63833	122.67098	123.24673	5.61036	0.1925697	0.27008043	2.3703218	21	1 31.8	20.9
516595 2007 HC_{73}	18.0	X	320.07012	115.19842	85.70010	2.36052	0.1309220	0.26701218	2.3884455	21	—	—
516596 2007 HQ_{75}	17.9	X	309.10290	14.64563	210.88427	3.51227	0.2068557	0.26804287	2.3823188	21	1 4.1	21.4
516597 2007 HS_{79}	18.1	X	299.66980	30.52197	200.97286	2.47706	0.1602156	0.26737357	2.3862928	21	1 7.2	21.3
516598 2007 HF_{80}	17.7	X	227.66856	209.49894	66.58799	7.10008	0.1719220	0.25898631	2.4375386	21	—	—
516599 2007 HC_{92}	15.6	X	147.54391	66.98537	228.50816	15.42395	0.1996100	0.17692071	3.1425601	21	—	—
516600 2007 JZ_{5}	18.3	X	229.83098	53.93258	225.62515	0.55418	0.1802018	0.26054194	2.4278263	21	1 1.2	22.2
516601 2007 JR_{26}	17.9	X	292.13749	39.88402	199.99792	7.56354	0.1425854	0.26566969	2.3964850	21	1 10.9	21.4
516602 2007 JV_{35}	17.2	X	312.61212	106.10299	126.35065	8.52677	0.0846883	0.27017448	2.3697716	21	2 3.7	20.2
516603 2007 JW_{37}	17.9	X	339.19650	244.15071	37.01775	20.73058	0.0642978	0.35493862	1.9756069	21	5 15.4	19.7
516604 2007 JK_{46}	13.9	X	72.48809	155.06101	50.98758	22.95152	0.0126983	0.08197372	5.2483115	21	6 30.1	21.0
516605 2007 KG_{4}	16.6	X	216.36517	44.10347	161.09364	15.69488	0.2233321	0.17608801	3.1524596	21	12 2.8	21.9
516606 2007 LA_{6}	17.3	X	174.80716	110.54625	159.56437	13.80038	0.2703302	0.17617950	3.1513680	21	—	—
516607 2007 LD_{22}	16.7	X	152.67448	82.23679	207.93396	19.00015	0.3330092	0.17403617	3.1771889	21	—	—
516608 2007 MA_{5}	15.5	X	162.35466	162.92135	93.16808	30.50801	0.1793790	0.17264374	3.1942494	21	12 17.3	20.9
516609 2007 OH_{11}	17.3	X	115.50542	104.39421	283.42780	1.35652	0.0644535	0.24727385	2.5139150	21	1 6.5	20.2
516610 2007 RM_{177}	17.4	X	115.41306	167.83137	178.13411	7.90445	0.1993396	0.23483033	2.6019559	21	—	—
516611 2007 RX_{251}	17.5	X	121.28395	180.08935	200.80364	11.68591	0.0517166	0.24122808	2.5557447	21	1 3.1	21.1
516612 2007 SN_{22}	17.0	X	306.05502	271.24411	216.75834	11.85729	0.1151959	0.21926143	2.7237122	21	—	—
516613 2007 TT_{97}	17.0	X	78.28105	344.41781	33.89214	13.64894	0.2095967	0.23082995	2.6319317	21	—	—
516614 2007 TQ_{362}	17.0	X	333.56016	13.32483	56.95170	8.83778	0.2073363	0.21300104	2.7768232	21	12 14.6	19.5
516615 2007 TM_{370}	17.1	X	20.32686	53.22244	2.35024	10.61819	0.1978532	0.22345732	2.6895089	21	—	—
516616 2007 UF_{26}	17.4	X	96.34930	2.47546	20.45930	8.19402	0.1698868	0.23391612	2.6087309	21	—	—
516617 2007 UN_{47}	16.6	X	84.07420	291.20757	75.59722	15.48286	0.1919916	0.22805650	2.6532270	21	—	—
516618 2007 UJ_{112}	17.4	X	144.67800	281.42429	39.65412	4.88986	0.0512277	0.23096855	2.6308787	21	—	—
516619 2007 UZ_{118}	16.7	X	109.93883	3.97699	5.41078	14.75517	0.1010851	0.23839726	2.5759368	21	—	—
516620 2007 VR_{159}	17.4	X	306.75191	70.04382	76.78556	10.04339	0.1550535	0.22123081	2.7075240	21	—	—
516621 2007 YK_{20}	17.1	X	356.86046	352.59854	102.50085	4.91759	0.0390614	0.21704996	2.7421818	21	—	—
516622 2007 YB_{42}	18.5	X	22.65435	225.54120	305.98683	5.10796	0.0605617	0.30673108	2.1775302	21	2 17.4	20.5
516623 2008 AO_{120}	17.2	X	288.98889	42.69672	118.15474	10.15825	0.0977802	0.21185908	2.7867927	21	—	—
516624 2008 BC_{38}	16.7	X	352.63185	307.05388	145.96991	17.79994	0.1788568	0.21150850	2.7898712	21	—	—
516625 2008 BT_{54}	16.9	X	234.22129	255.77369	313.23766	4.90605	0.1132300	0.20548381	2.8441401	21	—	—
516626 2008 CB_{104}	16.5	X	344.03766	285.80092	131.68797	14.95914	0.1505488	0.20245447	2.8724411	21	12 14.2	19.9
516627 2008 CJ_{126}	18.7	X	49.54773	283.39177	205.04587	1.06045	0.0389667	0.30114311	2.2043849	21	1 31.3	21.0
516628 2008 CM_{153}	17.1	X	354.96047	59.64047	14.03317	6.62935	0.0384991	0.20325886	2.8648577	21	—	—
516629 2008 CZ_{170}	17.2	X	238.38388	54.39708	168.89969	9.49859	0.1038280	0.20882621	2.8137103	21	—	—
516630 2008 DY_{9}	16.9	X	100.45013	63.22438	308.24250	5.31877	0.0385311	0.21627477	2.7487304	21	—	—
516631 2008 DP_{80}	16.9	X	86.06395	256.96463	128.24620	6.93462	0.0963805	0.21660344	2.7459491	21	—	—
516632 2008 EB_{29}	18.1	X	348.43555	36.01758	164.29582	6.03761	0.1245334	0.29491170	2.2353286	21	1 28.4	20.4
516633 2008 EQ_{58}	16.9	X	189.40047	124.65005	153.32386	6.68025	0.0031233	0.21350598	2.7724434	21	—	—
516634 2008 EE_{148}	17.3	X	190.98396	49.93374	186.34274	6.44926	0.1795379	0.19533539	2.9418155	21	12 19.9	22.2
516635 2008 EE_{164}	18.5	X	21.81544	78.38389	176.81245	22.30990	0.0670805	0.39045516	1.8539098	21	6 28.7	20.6
516636 2008 FD_{130}	18.3	X	295.18968	193.81513	63.35418	5.99485	0.0968933	0.29311378	2.2444601	21	2 10.6	21.2
516637 2008 FX_{132}	17.1	X	231.80728	3.16211	207.51304	7.92065	0.1421790	0.19785503	2.9167866	21	—	—
516638 2008 GD_{29}	17.6	X	252.24261	4.36350	198.27731	1.59570	0.0106638	0.20344109	2.8631467	21	—	—
516639 2008 GX_{35}	18.8	X	9.85928	138.44097	17.58740	4.57277	0.1044802	0.29273015	2.2464206	21	1 4.7	21.1
516640 2008 GC_{98}	17.2	X	253.71587	59.46745	117.76125	7.29575	0.1680468	0.19598852	2.9352761	21	12 16.3	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516641 2008 GB_{110}	19.7	X	131.62706	315.07985	203.56728	36.11291	0.3260805	0.39550746	1.8380879	21	8 5.9	23.7
516642 2008 GX_{127}	16.8	X	170.48191	98.80360	156.16510	10.54516	0.0621095	0.18948127	3.0021003	21	12 27.9	21.4
516643 2008 GH_{137}	17.5	X	301.46764	202.07930	72.22634	10.12205	0.1616481	0.29631516	2.2282648	21	3 7.4	20.5
516644 2008 GM_{144}	17.8	X	252.38190	259.01188	40.83781	10.86229	0.1472612	0.29126799	2.2539323	21	2 17.3	21.3
516645 2008 HQ_{7}	17.9	X	251.41584	184.57485	114.29646	10.00666	0.1939195	0.28871939	2.2671769	21	2 9.1	21.5
516646 2008 HM_{14}	18.0	X	221.99800	90.34152	234.77539	6.20811	0.0122954	0.29451248	2.2373482	21	2 11.5	20.9
516647 2008 HP_{46}	18.3	X	304.84963	226.32522	63.28554	9.85747	0.2839401	0.29538707	2.2329298	21	3 15.2	21.5
516648 2008 HB_{54}	18.0	X	270.02137	74.43644	201.85255	5.08623	0.1622324	0.28776437	2.2721903	21	1 28.4	21.4
516649 2008 JG_{25}	18.0	X	257.13153	243.70275	48.35169	6.00387	0.2602094	0.28598305	2.2816158	21	2 3.7	22.0
516650 2008 JB_{30}	16.5	X	86.04151	240.71213	72.37633	12.73016	0.0821457	0.18214313	3.0822003	21	12 7.7	21.0
516651 2008 KB_{1}	15.8	X	127.49572	232.05644	93.02058	13.55346	0.1024596	0.19166472	2.9792568	21	—	—
516652 2008 KA_{4}	18.5	X	291.62501	136.20866	147.02521	6.81442	0.1192975	0.29303893	2.2448423	21	3 9.0	21.2
516653 2008 KH_{22}	17.9	X	313.74516	155.00157	90.36603	8.46388	0.1678442	0.29160618	2.2521893	21	2 7.8	20.7
516654 2008 OB	17.7	X	261.84328	191.92000	122.06129	13.39444	0.2306771	0.28577866	2.2827036	21	3 9.8	21.5
516655 2008 OA_{7}	16.6	X	168.00344	152.12318	162.43361	20.79742	0.3948585	0.18636477	3.0354762	21	1 12.6	22.6
516656 2008 ON_{24}	16.4	X	149.18529	317.46990	329.31031	5.83868	0.2207142	0.17683321	3.1435968	21	—	—
516657 2008 OW_{25}	17.3	X	261.93072	160.64721	191.46636	7.44746	0.1594254	0.21311479	2.7758351	21	5 7.4	21.4
516658 2008 RU_{79}	18.3	X	295.99621	351.56897	347.62475	19.53338	0.1027283	0.37002538	1.9215353	21	5 25.3	20.8
516659 2008 RY_{101}	18.0	X	188.71046	151.60123	175.96303	2.95029	0.1956078	0.26599158	2.3945512	21	1 23.0	21.9
516660 2008 RW_{147}	17.9	X	313.77517	31.61246	60.55625	4.43934	0.1699405	0.23101812	2.6305023	21	12 10.4	20.5
516661 2008 SF_{10}	17.6	X	162.71082	139.49194	202.05724	1.81129	0.2102116	0.26388589	2.4072726	21	1 18.3	21.2
516662 2008 SD_{30}	17.0	X	342.20889	240.21606	191.05364	30.32944	0.2738828	0.23517180	2.5994365	21	—	—
516663 2008 SK_{35}	17.5	X	118.21307	203.74179	186.68664	6.62340	0.1477160	0.25941047	2.4348809	21	1 21.9	20.6
516664 2008 SY_{62}	17.4	X	96.62188	230.00994	191.08755	12.26773	0.1640806	0.26107865	2.4244979	21	2 1.6	20.4
516665 2008 ST_{66}	17.8	X	206.84441	259.33945	72.20359	2.16239	0.2632022	0.27096768	2.3651447	21	2 14.2	22.0
516666 2008 SS_{77}	17.0	X	261.72797	236.97165	190.54385	14.68195	0.0823599	0.22169493	2.7037439	21	8 20.7	20.9
516667 2008 SA_{99}	18.3	X	237.30518	156.70713	166.14105	4.81185	0.2736956	0.27533669	2.3400582	21	2 23.9	22.5
516668 2008 SE_{121}	16.1	X	168.06869	258.79161	20.91255	23.90606	0.3146183	0.17539396	3.1607704	21	—	—
516669 2008 SK_{149}	17.4	X	339.97669	141.89133	27.29983	8.43162	0.0049920	0.25856200	2.4402046	21	1 2.1	20.6
516670 2008 SD_{183}	17.8	X	249.53544	252.44210	45.54221	6.17939	0.2558380	0.27162659	2.3613183	21	2 7.0	21.9
516671 2008 SM_{225}	17.2	X	329.35777	42.22367	20.87335	8.03357	0.1723560	0.23129290	2.6284185	21	11 28.9	19.8
516672 2008 ST_{253}	18.1	X	108.90169	302.05135	89.66934	2.55874	0.1837143	0.25751142	2.4468371	21	1 18.6	20.8
516673 2008 SE_{269}	17.3	X	171.24922	324.02171	27.66043	7.29327	0.1247989	0.26237191	2.4165243	21	2 4.2	20.9
516674 2008 SF_{303}	17.9	X	186.23516	328.63871	9.40771	5.49929	0.1307888	0.26752969	2.3853643	21	2 1.1	21.5
516675 2008 SB_{312}	17.5	X	322.01713	292.52804	64.81740	3.78319	0.1271418	0.22075807	2.7113879	21	8 14.1	20.5
516676 2008 SD_{312}	17.5	X	346.41727	286.88448	141.87208	4.10376	0.1990675	0.23696326	2.5863187	21	—	—
516677 2008 SF_{312}	17.0	X	254.60594	269.32050	125.41316	7.08213	0.0476186	0.21081926	2.7959487	21	7 6.5	20.8
516678 2008 SH_{312}	17.0	X	235.19224	55.27844	39.48898	14.05362	0.1493235	0.21246989	2.7814491	21	8 25.6	21.4
516679 2008 SJ_{312}	17.2	X	356.25219	315.03518	45.55467	5.56794	0.1354531	0.22301000	2.6931042	21	10 21.8	20.1
516680 2008 SK_{312}	16.6	X	260.99882	100.06417	300.92629	4.54927	0.0392286	0.21771287	2.7366125	21	7 24.8	20.4
516681 2008 SL_{312}	18.0	X	0.15651	296.75872	87.22368	3.07602	0.2130066	0.22902239	2.6457619	21	12 10.8	20.7
516682 2008 TT_{1}	16.9	X	338.81974	246.59569	197.33056	29.52592	0.3388895	0.23451248	2.6043064	21	—	—
516683 2008 TM_{87}	18.7	X	253.89016	175.97153	194.83225	21.89217	0.0642234	0.36167143	1.9510119	21	5 26.6	21.3
516684 2008 TF_{106}	17.9	X	165.27504	136.70356	215.77838	2.60567	0.1418930	0.26248475	2.4158316	21	1 27.8	21.3
516685 2008 TQ_{149}	16.1	X	61.10853	297.81741	30.32983	10.34023	0.0309090	0.15894835	3.3751936	21	11 14.9	20.9
516686 2008 TU_{191}	17.2	X	38.14302	53.02470	31.60713	14.85445	0.0904289	0.25199681	2.4824053	21	—	—
516687 2008 TY_{191}	17.3	X	21.75510	276.17275	20.54612	13.18031	0.2187838	0.22600020	2.6692966	21	9 22.2	20.1
516688 2008 TA_{192}	17.4	X	268.39000	16.34323	75.75492	6.25176	0.0799477	0.22202470	2.7010660	21	10 8.7	21.0
516689 2008 TD_{192}	16.2	X	155.54619	319.89817	68.57930	10.87184	0.0298971	0.18409060	3.0604243	21	3 10.4	20.8
516690 2008 US_{128}	17.8	X	194.47789	343.57283	0.25560	4.98672	0.1681580	0.26894030	2.3770161	21	2 17.3	21.4
516691 2008 UD_{130}	18.3	X	235.78930	303.09441	7.86418	1.56220	0.1943386	0.27000740	2.3707492	21	2 12.0	22.2
516692 2008 UA_{150}	16.5	X	128.73950	174.06542	121.76600	1.92614	0.1685421	0.16611527	3.2774017	21	—	—
516693 2008 UF_{166}	18.0	X	256.18633	221.49362	71.91637	2.22861	0.1716243	0.26920472	2.3754593	21	2 9.9	21.6
516694 2008 UR_{180}	17.7	X	230.15020	269.85846	30.20793	4.75607	0.1489355	0.26194428	2.4191535	21	1 27.9	21.5
516695 2008 UT_{200}	17.8	X	184.16007	226.46493	218.87929	20.28601	0.0985250	0.36014802	1.9565098	21	6 12.1	20.5
516696 2008 UX_{342}	18.2	X	202.33713	203.74189	222.25421	19.17544	0.1073777	0.35899367	1.9607017	21	6 6.2	20.8
516697 2008 UB_{357}	17.5	X	210.90481	239.16694	53.51597	7.04379	0.0950083	0.25707044	2.4496345	21	—	—
516698 2008 UG_{358}	18.0	X	355.38915	269.82699	200.94771	6.51272	0.1674180	0.24094306	2.5577598	21	—	—
516699 2008 UA_{374}	16.1	X	7.88632	317.39943	37.26894	13.43575	0.1160439	0.22343024	2.6897263	21	10 30.9	19.2
516700 2008 VK_{20}	17.6	X	155.97678	187.80034	157.37826	1.90650	0.1993815	0.25639821	2.4539143	21	1 16.6	21.1
516701 2008 VB_{28}	18.2	X	271.16505	303.05464	41.28579	21.76821	0.0882628	0.35868233	1.9618361	21	5 4.3	20.3
516702 2008 VV_{36}	18.0	X	293.09698	276.54203	56.07885	21.52702	0.0326370	0.35920358	1.9599378	21	5 28.2	19.8
516703 2008 VZ_{81}	16.7	X	107.70460	333.47592	47.08366	5.28895	0.1497527	0.17195975	3.2027141	21	1 17.6	21.2
516704 2008 VA_{82}	16.7	X	183.24832	310.04284	50.85524	3.25703	0.1298974	0.18374543	3.0642558	21	3 8.4	21.5
516705 2008 VC_{82}	16.8	X	202.18947	342.35106	91.79784	6.84811	0.0688679	0.20122434	2.8841358	21	6 22.9	21.1
516706 2008 WA_{137}	16.7	X	344.66556	33.11480	79.06639	34.52164	0.2929077	0.23463332	2.6034121	21	—	—
516707 2008 WN_{140}	17.4	X	12.23158	347.17142	110.47128	7.31595	0.2361700	0.24299793	2.5433199	21	—	—
516708 2008 WZ_{142}	16.6	X	175.36881	123.47080	213.95633	5.10926	0.1419135	0.18030256	3.1031406	21	1 30.9	21.6
516709 2008 YC_{80}	17.1	X	256.26077	106.05803	132.17867	15.79839	0.0819445	0.23638301	2.5905494	21	—	—
516710 2008 YX_{80}	17.4	X	268.76993	125.76434	86.90586	5.93016	0.1116714	0.23508942	2.6000438	21	—	—
516711 2008 YK_{136}	17.3	X	314.76515	94.04157	68.72106	3.16638	0.0793854	0.23793214	2.5792928	21	—	—
516712 2008 YA_{175}	16.4	X	245.98410	238.89094	132.44844	9.55549	0.1283625	0.19070166	2.9892786	21	5 20.7	21.1
516713 2009 AP_{11}	17.7	X	314.68097	41.68540	110.92393	14.47833	0.1960021	0.23232190	2.6206515	21	—	—
516714 2009 AE_{31}	17.3	X	349.57092	327.91988	120.04714	14.36777	0.2178340	0.23095581	2.6309754	21	—	—
516715 2009 AV_{32}	17.4	X	276.67996	80.37131	117.55685	3.29636	0.1405506	0.23082273	2.6319865	21	—	—
516716 2009 BU_{1}	17.3	X	270.02523	104.53222	95.89182	14.24861	0.1150057	0.23288937	2.6163927	21	—	—
516717 2009 BK_{10}	16.7	X	84.51132	65.45742	317.96241	14.32512	0.1493875	0.24321665	2.5417950	21	—	—
516718 2009 BR_{39}	17.5	X	301.42277	78.02063	90.93175	3.37182	0.1334254	0.23022082	2.6365721	21	—	—
516719 2009 BM_{67}	17.3	X	284.43393	11.68946	155.78543	5.10765	0.1812215	0.22480671	2.6787357	21	—	—
516720 2009 BB_{107}	17.3	X	310.46290	10.51845	145.45766	11.98768	0.1606635	0.22997666	2.6384379	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516721 2009 BC_{107}	17.1	X	292.69213	47.16735	134.38951	14.33056	0.1865710	0.22857930	2.6491799	21	—	—
516722 2009 BR_{125}	17.8	X	345.29549	188.83525	285.91932	1.16467	0.1635084	0.23127184	2.6285781	21	—	—
516723 2009 BZ_{142}	17.2	X	313.85996	48.53539	106.45018	4.88781	0.1661810	0.23030290	2.6359456	21	—	—
516724 2009 BU_{182}	17.7	X	346.51242	67.91245	57.82588	4.80122	0.1517254	0.23204028	2.6227715	21	—	—
516725 2009 DK_{12}	15.3	X	103.09308	223.19248	62.57980	45.40853	0.4357252	0.10866967	4.3490776	21	12 4.2	22.7
516726 2009 DM_{15}	17.4	X	289.78763	151.09368	3.49319	3.31549	0.1771628	0.22457513	2.6805769	21	—	—
516727 2009 DV_{87}	17.0	X	199.60956	115.21412	144.33991	13.68771	0.1113984	0.21871102	2.7282800	21	—	—
516728 2009 DQ_{88}	17.1	X	247.59963	115.12068	151.49685	13.48722	0.2561571	0.22990042	2.6390212	21	1 2.7	21.9
516729 2009 DR_{129}	17.2	X	326.71831	279.78447	190.76900	13.80208	0.1610358	0.22072747	2.7116385	21	—	—
516730 2009 DS_{138}	17.3	X	285.80450	117.07251	65.23545	4.42038	0.1609643	0.22535611	2.6743803	21	—	—
516731 2009 DZ_{144}	15.5	X	85.72676	157.61199	116.86840	3.78461	0.0619701	0.12422672	3.9779504	21	10 14.7	21.1
516732 2009 EN_{5}	17.4	X	254.09197	118.34763	101.02208	6.03720	0.1026089	0.22849978	2.6497945	21	—	—
516733 2009 EC_{7}	17.1	X	321.44741	9.83290	129.79773	14.36614	0.1134725	0.22854201	2.6494680	21	—	—
516734 2009 FG_{1}	18.9	X	302.83652	11.64091	5.02878	69.81824	0.2721483	0.75558997	1.1938376	21	3 22.9	21.3
516735 2009 FB_{59}	17.1	X	3.67396	270.66785	185.97836	13.67643	0.0348920	0.22259780	2.6964279	21	—	—
516736 2009 FG_{75}	16.7	X	324.51112	114.71625	25.79502	16.46834	0.0783168	0.21977750	2.7194468	21	—	—
516737 2009 GS_{5}	16.9	X	182.84650	280.88324	36.23694	15.11428	0.1652568	0.22299909	2.6931920	21	1 13.1	21.5
516738 2009 HN_{6}	16.8	X	205.45280	92.01587	173.18840	10.17427	0.0898060	0.21747725	2.7385888	21	—	—
516739 2009 HR_{87}	17.0	X	195.72220	176.36911	105.17240	6.37687	0.1327472	0.21850169	2.7300222	21	—	—
516740 2009 JW_{8}	17.5	X	235.98598	161.94221	90.28804	9.64922	0.2719774	0.21826243	2.7320169	21	—	—
516741 2009 KF_{30}	16.7	X	303.54699	48.75696	117.38299	4.72645	0.1427265	0.21900673	2.7258235	21	—	—
516742 2009 QQ_{51}	16.1	X	47.91692	356.76113	350.31719	15.06509	0.1989705	0.17632668	3.1496142	21	12 19.3	20.8
516743 2009 RP	18.0	X	173.55773	214.10028	154.41741	6.67412	0.1981084	0.29423203	2.2387697	21	2 26.4	21.2
516744 2009 RM_{13}	17.9	X	104.08654	55.21570	17.08488	5.01760	0.1474453	0.28638117	2.2795008	21	2 26.1	20.3
516745 2009 RA_{19}	18.0	X	219.86350	18.23256	315.03428	6.03605	0.2125059	0.29690446	2.2253154	21	2 21.3	21.7
516746 2009 RE_{19}	15.5	X	37.55986	355.18114	2.32699	28.96408	0.1949376	0.17358766	3.1826593	21	12 14.7	20.4
516747 2009 RY_{40}	17.8	X	180.02867	187.36438	210.77887	8.61206	0.1481109	0.29790680	2.2203210	21	4 7.5	20.9
516748 2009 SK_{24}	16.1	X	44.61121	148.36118	204.17558	10.48980	0.0886418	0.17551295	3.1593418	21	12 6.9	20.5
516749 2009 SY_{74}	18.4	X	285.95427	205.49468	92.72388	4.10816	0.1595266	0.30291113	2.1957989	21	3 17.0	21.2
516750 2009 SO_{135}	16.5	X	16.79412	355.84394	17.22914	16.83162	0.0917557	0.16939250	3.2349924	21	11 18.8	21.0
516751 2009 SU_{172}	16.4	X	219.38465	314.45074	223.84527	8.08301	0.0404726	0.17436764	3.1731611	21	11 20.5	21.0
516752 2009 SJ_{242}	18.1	X	208.33127	110.48828	248.48955	5.53806	0.2427137	0.29896736	2.2150670	21	3 14.0	22.0
516753 2009 SW_{255}	18.6	X	305.46506	68.26016	205.70607	3.11210	0.1623636	0.30621772	2.1799632	21	3 3.3	21.3
516754 2009 SR_{256}	18.2	X	94.15783	225.83518	189.16769	6.96619	0.1611876	0.28218407	2.3020480	21	1 15.4	20.6
516755 2009 SO_{267}	18.2	X	49.59016	85.66795	6.85360	5.86246	0.2156494	0.27346063	2.3507485	21	—	—
516756 2009 SZ_{273}	16.7	X	115.82803	281.24047	17.94176	10.08799	0.0556549	0.17912844	3.1166858	21	12 20.1	21.5
516757 2009 SM_{280}	16.8	X	150.82035	258.01037	49.54368	8.21634	0.1442750	0.18958661	3.0009881	21	—	—
516758 2009 SX_{312}	16.6	X	76.11019	297.57453	27.79336	9.51476	0.0936785	0.17464367	3.1698167	21	12 10.3	21.4
516759 2009 SE_{328}	16.4	X	128.79801	291.06029	21.81959	9.80400	0.2166495	0.18577385	3.0419097	21	—	—
516760 2009 SF_{351}	18.5	X	59.16278	278.12028	175.41647	5.22243	0.1466632	0.27875867	2.3208681	21	1 5.5	20.6
516761 2009 SX_{352}	15.7	X	68.21973	317.90199	22.35058	27.27359	0.1281710	0.17845533	3.1245180	21	12 22.9	20.8
516762 2009 SH_{370}	17.3	X	294.80968	24.19666	232.01672	6.32370	0.0914792	0.28731586	2.2745543	21	2 5.3	20.3
516763 2009 TN_{21}	15.5	X	58.10765	300.53884	44.58321	27.27314	0.2873404	0.17471239	3.1689855	21	—	—
516764 2009 TC_{31}	17.8	X	69.14618	150.15258	305.78618	6.18041	0.0496485	0.28391627	2.2926752	21	1 20.7	20.2
516765 2009 TJ_{31}	18.0	X	91.67757	265.78383	173.88436	6.28048	0.1278073	0.28446686	2.2897159	21	2 10.6	20.4
516766 2009 UZ_{62}	16.6	X	132.24900	233.79019	46.51883	12.32805	0.0681674	0.17619166	3.1512231	21	12 14.6	21.4
516767 2009 US_{66}	16.4	X	121.05783	266.03393	45.69719	11.14571	0.0840238	0.18094201	3.0958253	21	—	—
516768 2009 UO_{140}	17.8	X	22.06366	250.62715	222.34896	8.65975	0.1384585	0.26953138	2.3735397	21	—	—
516769 2009 VE_{95}	18.0	X	256.97577	61.49964	257.18804	6.08435	0.1506540	0.29382942	2.2408143	21	3 8.9	21.3
516770 2009 VU_{106}	17.7	X	49.51514	48.04513	37.20147	5.97754	0.2168667	0.27212268	2.3584476	21	—	—
516771 2009 VY_{118}	16.7	X	69.65155	133.98978	306.53947	5.75104	0.1956856	0.18353649	3.0665810	21	2 10.1	20.3
516772 2009 WS_{39}	15.6	X	68.84686	289.13117	65.25270	14.50892	0.1180072	0.17122307	3.2118940	21	—	—
516773 2009 WA_{71}	16.1	X	64.28648	129.07747	232.00073	8.95642	0.0768627	0.17247354	3.1963506	21	—	—
516774 2009 WO_{112}	17.5	X	260.81652	41.15651	253.78127	4.86826	0.2080053	0.28714357	2.2754641	21	2 8.7	21.1
516775 2009 WC_{116}	16.7	X	41.14769	334.06570	34.28665	9.97301	0.0919191	0.17426813	3.1743690	21	12 20.7	21.2
516776 2009 WS_{127}	17.7	X	124.99327	331.11472	75.32405	7.41091	0.1324342	0.27962810	2.3160549	21	2 20.1	20.6
516777 2009 WY_{164}	17.8	X	17.64171	74.04065	64.44223	5.91998	0.1667451	0.27083235	2.3659325	21	—	—
516778 2009 WB_{208}	18.1	X	74.47176	32.07674	54.34227	7.30346	0.1689469	0.27574645	2.3377394	21	2 2.2	20.2
516779 2009 WP_{254}	18.2	X	32.38642	11.95992	98.46935	3.29542	0.1766905	0.27002683	2.3706354	21	—	—
516780 2009 WK_{260}	17.7	X	40.98409	34.57711	77.63196	7.99065	0.0642759	0.27189173	2.3597829	21	1 2.7	20.3
516781 2009 WY_{269}	16.4	X	52.45168	310.62760	172.49553	1.24155	0.0928591	0.17998564	3.1067822	21	2 26.9	20.2
516782 2009 XZ_{5}	17.4	X	38.99327	163.69087	294.04467	4.07303	0.1860187	0.26850606	2.3795782	21	—	—
516783 2009 XD_{8}	17.5	X	301.23329	62.86733	280.65191	22.69060	0.2671510	0.39484807	1.8401337	21	5 10.8	19.9
516784 2010 AL_{5}	17.9	X	42.19632	352.10059	102.81268	5.45615	0.1106153	0.26493042	2.4009411	21	—	—
516785 2010 AG_{33}	18.0	X	14.85641	87.13398	21.45522	2.73715	0.1901848	0.25930300	2.4355536	21	—	—
516786 2010 AO_{123}	16.3	X	84.70936	169.20576	178.75226	16.61374	0.0985176	0.17976311	3.1093457	21	—	—
516787 2010 AQ_{140}	16.2	X	81.85544	129.29270	327.38810	11.11955	0.1598213	0.18596486	3.0398265	21	3 12.7	20.2
516788 2010 BW_{109}	15.6	X	67.55564	150.96169	181.55488	28.28693	0.2072757	0.17161138	3.2070470	21	12 23.4	21.0
516789 2010 BH_{120}	15.9	X	44.31676	251.35205	148.61850	15.08297	0.0792862	0.17813061	3.1283141	21	—	—
516790 2010 CU_{235}	15.6	X	139.58627	239.06432	34.37347	17.91602	0.1494239	0.17202470	3.2019080	21	12 13.8	21.0
516791 2010 EN_{107}	18.5	X	100.38010	358.08768	190.19953	22.03092	0.0612786	0.37263397	1.9125571	21	7 21.2	21.1
516792 2010 EW_{135}	17.6	X	246.47896	58.93082	172.84718	7.63043	0.1264052	0.24002511	2.5642769	21	—	—
516793 2010 FB_{91}	18.4	X	124.25610	304.61426	198.34031	22.08341	0.0443057	0.36510362	1.9387655	21	6 14.7	21.0
516794 2010 GW_{34}	16.2	X	113.72132	121.43413	126.63211	2.43948	0.1909159	0.12714483	3.9168497	21	10 25.3	22.3
516795 2010 GZ_{62}	17.2	X	215.23201	54.87683	222.03618	14.99231	0.3995175	0.23024369	2.6363975	21	—	—
516796 2010 GO_{126}	17.8	X	214.44103	238.27674	23.55294	11.81664	0.1609079	0.23702720	2.5858535	21	—	—
516797 2010 GO_{161}	17.2	X	247.97965	139.83014	129.10198	14.30564	0.0871602	0.24559288	2.5253730	21	1 10.1	20.9
516798 2010 HV_{103}	17.7	X	219.15145	227.22001	40.80466	9.68333	0.1405375	0.23954047	2.5677345	21	—	—
516799 2010 HY_{106}	16.9	X	225.50163	183.94215	54.69393	15.69939	0.0613263	0.23436989	2.6053626	21	—	—
516800 2010 JM_{35}	18.6	X	345.87239	68.94291	207.26638	20.74758	0.0859906	0.36395320	1.9428489	21	5 22.7	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516801 2010 JL_{36}	17.8	X	262.96456	9.90907	219.14547	11.71779	0.1338601	0.24174963	2.5520676	21	—	—
516802 2010 JA_{82}	18.0	X	45.70290	217.90373	32.97968	21.17642	0.0573774	0.37300414	1.9112916	21	8 23.5	20.4
516803 2010 JG_{88}	19.5	X	285.16400	106.07081	213.35374	30.61138	0.3845339	0.61216272	1.3736986	21	2 9.1	22.4
516804 2010 JN_{176}	17.2	X	226.86667	30.75658	216.12321	13.70262	0.2200837	0.23272651	2.6176132	21	—	—
516805 2010 KU_{20}	17.4	X	247.00720	81.65110	187.47394	11.48871	0.2804017	0.23436872	2.6053712	21	1 2.9	22.3
516806 2010 KN_{35}	16.9	X	227.62060	137.44354	145.21508	14.23054	0.2698557	0.23116474	2.6293899	21	1 6.5	21.7
516807 2010 KK_{98}	17.0	X	183.61722	175.50110	154.35826	9.31769	0.2822544	0.22568318	2.6717957	21	1 30.5	21.8
516808 2010 LW_{60}	17.4	X	266.43831	100.04290	135.60616	15.55996	0.0842133	0.24068717	2.5595724	21	—	—
516809 2010 LC_{119}	17.0	X	193.96762	179.95186	159.88917	7.66633	0.2792730	0.22862796	2.6488040	21	2 17.9	21.7
516810 2010 MR_{12}	17.1	X	214.37141	302.17890	334.65735	8.26187	0.1901878	0.22207697	2.7006421	21	—	—
516811 2010 MQ_{80}	16.3	X	337.96748	227.13654	216.65031	11.39334	0.0179230	0.19746041	2.9206714	21	12 27.8	20.5
516812 2010 NT_{5}	17.3	X	187.25459	318.88472	315.60126	12.52540	0.1801352	0.22057270	2.7129068	21	—	—
516813 2010 NU_{42}	16.6	X	136.55814	298.10255	33.72710	20.88923	0.1610284	0.21034486	2.8001510	21	—	—
516814 2010 OT_{21}	16.6	X	172.85551	314.42580	2.13068	12.77822	0.3257462	0.21793044	2.7347908	21	1 14.9	21.7
516815 2010 OD_{75}	16.8	X	273.15648	73.23857	25.30567	25.35581	0.2970822	0.17198243	3.2024325	21	9 23.1	21.6
516816 2010 OG_{79}	16.5	X	18.70407	328.63526	73.40829	10.53402	0.0933643	0.19136632	2.9823530	21	—	—
516817 2010 OW_{84}	17.6	X	355.30331	348.65944	118.96944	9.80196	0.1174039	0.23876198	2.5733129	21	—	—
516818 2010 OS_{99}	16.5	X	293.86099	68.76018	14.98094	25.53115	0.2610253	0.17449652	3.1715985	21	10 1.1	20.4
516819 2010 RT_{42}	17.2	X	156.89655	70.82072	234.63823	3.43073	0.0544258	0.21023294	2.8011447	21	—	—
516820 2010 RO_{111}	16.4	X	332.40298	251.22196	177.78278	10.07857	0.0965746	0.18948353	3.0020764	21	12 3.8	20.2
516821 2010 RZ_{153}	16.9	X	203.10380	341.33986	222.42231	8.81585	0.0130504	0.19229840	2.9727081	21	12 8.1	21.1
516822 2010 RA_{176}	16.3	X	334.17941	89.25542	338.61873	9.03529	0.0759503	0.19006408	2.9959601	21	12 1.9	20.3
516823 2010 SY_{23}	17.6	X	199.18364	123.71251	177.01786	7.37907	0.1895641	0.22393642	2.6856715	21	1 5.7	22.2
516824 2010 TR_{21}	16.7	X	282.71766	105.74550	19.34889	9.33064	0.0545179	0.18974268	2.9993422	21	12 2.2	20.8
516825 2010 TS_{58}	16.8	X	225.57591	68.30213	221.97462	12.13450	0.2532127	0.22564474	2.6720992	21	1 12.2	21.8
516826 2010 TC_{67}	16.5	X	111.84045	116.37858	193.66880	11.97343	0.0777255	0.19927366	2.9029270	21	—	—
516827 2010 TM_{105}	17.1	X	301.55172	74.50252	2.61053	8.27064	0.1098698	0.18111194	3.0938885	21	10 21.3	21.1
516828 2010 UX_{10}	16.2	X	57.44177	290.19322	53.61079	10.04446	0.1591864	0.18649584	3.0340539	21	12 22.6	20.6
516829 2010 UV_{57}	16.5	X	310.79254	69.77965	47.54576	10.85527	0.0340806	0.18593442	3.0401582	21	—	—
516830 2010 UR_{108}	17.3	X	120.40566	142.47708	186.87201	1.83186	0.0566642	0.20045338	2.8915262	21	—	—
516831 2010 VS_{28}	16.1	X	7.83044	279.69766	62.54294	12.20084	0.0771702	0.17303808	3.1893947	21	10 8.7	20.4
516832 2010 VT_{29}	16.3	X	318.26560	21.98572	34.99733	13.83144	0.1530964	0.17560749	3.1582078	21	10 20.5	20.0
516833 2010 VY_{90}	16.5	X	156.29538	295.42352	12.24772	2.40990	0.0998635	0.19694728	2.9257423	21	—	—
516834 2010 VV_{112}	16.7	X	273.16111	355.68691	116.17631	2.61867	0.2162154	0.17386188	3.1793119	21	10 11.9	21.1
516835 2010 WX_{2}	16.5	X	67.53929	276.71818	70.13372	10.73824	0.1621406	0.18802132	3.0176207	21	—	—
516836 2010 WH_{22}	16.3	X	171.42124	331.61616	248.61194	9.44965	0.0651386	0.17648069	3.1477816	21	11 15.4	21.0
516837 2010 WO_{61}	16.2	X	317.85842	346.04549	68.97870	10.02036	0.0804642	0.17192029	3.2032042	21	10 24.5	20.4
516838 2010 XB_{80}	16.4	X	338.53706	172.95366	248.04968	8.94598	0.0447214	0.17986409	3.1081817	21	11 28.7	20.5
516839 2010 YK_{5}	15.7	X	157.28884	229.67856	78.96113	11.64571	0.0992246	0.18981699	2.9985594	21	—	—
516840 2011 AG_{31}	15.6	X	34.99688	264.04255	127.27817	10.32159	0.0811355	0.17623466	3.1507105	21	—	—
516841 2011 AC_{37}	18.2	X	319.41554	135.78852	127.45620	3.93902	0.1089059	0.30472295	2.1870864	21	3 19.5	20.5
516842 2011 BQ_{17}	18.8	X	64.19926	171.26887	311.72163	2.29086	0.1130262	0.29925701	2.2136374	21	2 21.8	20.7
516843 2011 BA_{103}	17.9	X	276.20398	212.08920	100.80875	6.94721	0.1023215	0.30975011	2.1633580	21	4 2.7	20.7
516844 2011 BN_{112}	18.3	X	336.91683	323.36233	254.62800	4.40967	0.0957837	0.29343877	2.2428026	21	2 9.0	20.8
516845 2011 BZ_{122}	18.6	X	66.30288	13.83849	109.47207	1.82528	0.0989799	0.29832079	2.2182664	21	2 26.4	20.4
516846 2011 BW_{164}	16.2	X	278.11511	221.93124	356.83572	11.08295	0.0433831	0.18082897	3.0971153	21	—	—
516847 2011 BX_{164}	16.9	X	208.47494	93.08712	178.63359	9.91649	0.0099923	0.18248386	3.0783624	21	—	—
516848 2011 BZ_{164}	17.0	X	97.79459	60.58487	323.23157	9.49006	0.0894532	0.18346053	3.0674273	21	—	—
516849 2011 BA_{165}	17.4	X	100.90196	259.70447	330.89396	3.15852	0.1200677	0.23346459	2.6120934	21	9 23.8	21.1
516850 2011 CW_{27}	18.3	X	327.02553	189.22582	32.55903	0.92377	0.1047391	0.29415658	2.2391525	21	1 31.6	20.8
516851 2011 CO_{36}	18.4	X	18.57531	150.22130	22.22081	3.34537	0.0771594	0.29686475	2.2255138	21	2 15.7	20.4
516852 2011 CM_{47}	18.3	X	276.56735	178.67637	118.30705	6.51126	0.1161118	0.30396186	2.1907357	21	3 9.6	21.1
516853 2011 DX_{14}	18.2	X	300.66410	327.56293	283.92592	1.93502	0.1069060	0.29354697	2.2422515	21	2 5.2	20.8
516854 2011 EW_{23}	18.2	X	27.06721	9.45146	152.18263	7.16825	0.1092492	0.29319777	2.2440315	21	2 11.3	20.2
516855 2011 EC_{25}	18.2	X	314.57476	133.91253	85.38070	1.39489	0.1327934	0.28279060	2.2987553	21	1 9.7	21.0
516856 2011 ES_{43}	18.1	X	332.73078	124.76765	82.72807	2.65151	0.1009779	0.28747153	2.2737331	21	1 22.1	20.7
516857 2011 EP_{69}	17.7	X	328.78625	167.82769	32.53255	8.49187	0.0522581	0.28275597	2.2989429	21	1 17.3	20.6
516858 2011 ED_{70}	18.6	X	18.50851	322.01126	167.76101	4.76998	0.1534703	0.28084316	2.3093698	21	—	—
516859 2011 ES_{70}	18.4	X	349.07647	17.80207	172.43395	7.91221	0.1326613	0.28458931	2.2890591	21	1 16.1	20.9
516860 2011 ET_{88}	16.6	X	11.17142	293.00106	19.47216	14.46585	0.1935761	0.22181460	2.7027713	21	9 20.5	19.3
516861 2011 FJ_{11}	18.4	X	321.38850	267.60900	291.68734	1.63222	0.1579672	0.27994714	2.3142949	21	—	—
516862 2011 FA_{19}	18.3	X	18.66263	92.56380	71.17135	3.21577	0.1679947	0.28783211	2.2718338	21	1 26.3	20.0
516863 2011 FS_{32}	18.2	X	8.35097	66.09481	97.70730	3.07207	0.1457244	0.28370700	2.2938025	21	1 9.9	20.2
516864 2011 FF_{78}	17.8	X	323.83176	78.59214	125.33583	2.51940	0.1390442	0.28314120	2.2968572	21	—	—
516865 2011 FK_{134}	18.4	X	306.83783	54.86210	178.37740	3.60807	0.1719836	0.28481552	2.2878468	21	1 12.3	21.6
516866 2011 GF_{32}	18.6	X	350.55701	9.43319	150.40707	3.37496	0.1638129	0.27626643	2.3348051	21	—	—
516867 2011 GB_{60}	17.9	X	271.76264	130.64977	116.25763	3.09290	0.1786975	0.27487475	2.3426792	21	—	—
516868 2011 GC_{60}	19.0	X	89.13852	241.50650	16.40122	44.66397	0.4029472	0.41753721	1.7728525	21	11 1.1	22.9
516869 2011 HD_{8}	18.0	X	26.45549	286.80276	202.36774	21.20752	0.3505570	0.28296931	2.2977873	21	—	—
516870 2011 HC_{13}	18.1	X	276.04415	68.63268	184.75757	8.42421	0.2107760	0.27492304	2.3424049	21	1 4.7	22.0
516871 2011 HA_{17}	18.1	X	17.01573	346.38175	186.05331	3.25433	0.0913074	0.28532365	2.2851298	21	2 12.1	20.4
516872 2011 HU_{17}	18.1	X	351.25241	142.96878	43.25929	7.34438	0.1098098	0.28405857	2.2919095	21	1 21.1	20.7
516873 2011 HT_{28}	18.0	X	302.36336	63.04340	173.89339	6.76147	0.2362363	0.27739211	2.3284843	21	1 6.2	21.5
516874 2011 HZ_{32}	17.8	X	272.61920	197.06727	107.06986	5.38416	0.1917305	0.28149642	2.3057956	21	3 9.6	21.2
516875 2011 HR_{33}	18.4	X	312.26697	119.18307	123.95463	5.44268	0.2085914	0.28138112	2.3064254	21	1 28.0	21.3
516876 2011 HM_{39}	18.0	X	257.93786	75.33717	210.47627	21.46289	0.2728851	0.27203695	2.3589430	21	1 21.3	22.6
516877 2011 HL_{64}	18.5	X	324.86376	24.89496	180.12391	1.34682	0.1425799	0.27961558	2.3161240	21	1 2.7	21.4
516878 2011 HU_{66}	18.2	X	312.70672	119.27581	112.57526	9.50769	0.1668228	0.27807633	2.3246631	21	1 20.2	21.2
516879 2011 HZ_{66}	17.8	X	257.79422	181.14010	125.75542	5.69154	0.2825775	0.27571176	2.3379355	21	2 20.8	21.8
516880 2011 HS_{70}	17.8	X	265.29338	217.11094	68.07940	8.05690	0.1641394	0.27976418	2.3153037	21	2 9.6	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516881 2011 JK_{32}	16.8	X	28.15659	220.04257	76.97827	7.33809	0.0380639	0.21687682	2.7436410	21	9 8.1	20.4
516882 2011 KU_{13}	18.1	X	177.83987	28.63199	52.91818	19.58993	0.0771003	0.39723451	1.8327564	21	5 25.6	20.1
516883 2011 KP_{28}	17.9	X	284.10766	156.37449	123.06085	3.62846	0.2380171	0.27753130	2.3277057	21	2 11.7	21.5
516884 2011 KJ_{45}	18.5	X	260.03986	321.34666	312.35758	0.47785	0.1693166	0.27122793	2.3636315	21	1 19.3	22.1
516885 2011 KE_{49}	17.8	X	124.54420	99.70242	189.13435	2.81113	0.1779636	0.23861775	2.5743497	21	12 31.4	22.1
516886 2011 LJ_{13}	18.5	X	256.45692	187.45148	88.76812	3.64597	0.1884819	0.27031585	2.3689453	21	1 18.7	22.2
516887 2011 MQ_{5}	17.6	X	244.37680	180.64084	110.21365	14.91199	0.2065669	0.26396657	2.4067820	21	1 26.5	21.5
516888 2011 OD_{12}	17.8	X	220.28375	163.25113	139.00158	6.88489	0.1685443	0.25829978	2.4418559	21	1 20.2	21.7
516889 2011 OC_{19}	17.7	X	238.00394	96.15371	176.37107	1.52993	0.1653880	0.25475085	2.4644818	21	—	—
516890 2011 OZ_{19}	17.8	X	229.72876	150.47700	169.91753	2.20365	0.1338188	0.26290375	2.4132641	21	2 19.8	21.5
516891 2011 OW_{42}	17.9	X	231.63009	187.42683	111.58433	3.61862	0.1947452	0.26162290	2.4211343	21	1 25.9	22.0
516892 2011 OE_{43}	17.2	X	205.61299	192.46565	124.78248	16.90938	0.1016826	0.25797588	2.4438993	21	1 24.0	20.9
516893 2011 QO_{20}	17.8	X	226.26214	50.25045	206.55630	7.72207	0.1156617	0.24475413	2.5311392	21	—	—
516894 2011 RX_{17}	17.7	X	336.97182	280.05760	190.92112	8.65344	0.2029982	0.21942642	2.7223468	21	—	—
516895 2011 RP_{18}	16.9	X	358.65190	85.80890	12.12207	12.23407	0.0922169	0.22481763	2.6786490	21	—	—
516896 2011 RP_{20}	18.2	X	188.70943	122.98972	320.46226	5.04970	0.1234001	0.27222478	2.3578578	21	6 17.9	21.7
516897 2011 SF_{38}	18.5	X	221.54236	19.50107	22.59498	21.45768	0.0697717	0.37039423	1.9202594	21	5 18.9	21.0
516898 2011 SO_{70}	18.5	X	129.52445	256.95105	198.89114	20.79018	0.1315876	0.36450833	1.9408758	21	4 24.4	20.5
516899 2011 SG_{71}	17.2	X	244.61261	13.01109	190.22143	14.52109	0.0168175	0.22602933	2.6690673	21	—	—
516900 2011 ST_{89}	16.4	X	6.58082	256.14006	202.44248	21.59536	0.0598949	0.22437173	2.6821967	21	—	—
516901 2011 SW_{138}	18.2	X	249.13133	112.15550	177.91011	4.91207	0.2321263	0.25671024	2.4519254	21	1 27.6	22.3
516902 2011 SM_{205}	19.2	X	30.09463	92.84006	179.78083	22.13624	0.0311098	0.38923389	1.8577857	21	8 9.2	21.2
516903 2011 ST_{222}	18.1	X	280.44919	244.80220	56.92957	22.41984	0.0833379	0.35689394	1.9683845	21	3 30.6	20.9
516904 2011 SP_{259}	16.6	X	142.82701	247.85029	53.39675	25.69834	0.1275327	0.21653192	2.7465537	21	—	—
516905 2011 SO_{260}	17.4	X	30.97771	207.74688	214.74159	10.88845	0.0657726	0.22006185	2.7171037	21	—	—
516906 2011 SN_{278}	17.2	X	303.59387	139.51438	44.10234	4.77079	0.1034735	0.23404615	2.6077646	21	—	—
516907 2011 UM_{20}	17.8	X	280.16372	323.54432	53.65644	21.91974	0.1074861	0.38142502	1.8830561	21	7 9.0	20.0
516908 2011 UX_{57}	17.3	X	187.84190	154.52572	173.25701	3.67855	0.1325146	0.24114290	2.5563465	21	1 22.7	21.3
516909 2011 UN_{75}	17.1	X	357.40608	358.38619	74.30160	4.74567	0.2260217	0.20949993	2.8076747	21	—	—
516910 2011 UE_{99}	17.4	X	147.82470	321.04930	6.48737	4.15933	0.0830842	0.22614751	2.6681373	21	—	—
516911 2011 UG_{109}	17.6	X	170.94009	265.88041	70.71381	14.87914	0.1238825	0.23926106	2.5697332	21	1 18.6	21.6
516912 2011 UJ_{181}	16.3	X	112.51898	149.77669	230.22418	27.94405	0.0529017	0.22914460	2.6448211	21	—	—
516913 2011 US_{183}	18.1	X	94.76839	151.11728	51.81052	22.69054	0.0599450	0.37205971	1.9145246	21	8 25.6	20.9
516914 2011 UN_{241}	16.8	X	119.46415	102.38800	246.24706	5.39383	0.0341823	0.22032018	2.7149794	21	—	—
516915 2011 UU_{246}	16.8	X	276.13507	241.03871	228.66225	13.51897	0.2654715	0.19054536	2.9909131	21	10 3.0	20.9
516916 2011 UH_{253}	17.4	X	179.64176	252.34641	52.50478	3.08238	0.1252513	0.22648332	2.6654993	21	—	—
516917 2011 UU_{253}	17.0	X	174.07884	150.47426	191.56768	18.77705	0.0380866	0.23757158	2.5819019	21	1 16.5	21.0
516918 2011 UG_{258}	17.4	X	335.78787	58.95801	17.24057	5.25897	0.0893839	0.20372638	2.8604732	21	12 20.1	21.0
516919 2011 UA_{266}	17.4	X	178.52911	268.42594	57.09147	14.23737	0.2017989	0.23466683	2.6031643	21	1 19.5	21.9
516920 2011 UY_{270}	18.0	X	255.79566	159.72221	197.88541	21.87298	0.0433653	0.36738361	1.9307359	21	5 11.4	20.2
516921 2011 UK_{300}	16.9	X	135.67252	126.35040	224.05573	14.30413	0.0508462	0.22525432	2.6751859	21	—	—
516922 2011 UM_{333}	17.2	X	198.31915	256.75145	53.26304	15.55221	0.2171001	0.24441280	2.5334952	21	1 16.7	21.7
516923 2011 UL_{396}	16.3	X	150.12207	154.55662	196.80739	31.98395	0.1668021	0.23507753	2.6001315	21	1 13.7	20.9
516924 2011 UL_{414}	17.3	X	40.98553	189.08740	235.06078	5.11255	0.0276672	0.21799797	2.7342261	21	—	—
516925 2011 UX_{414}	16.2	X	284.94469	120.89020	249.29845	3.97224	0.0563411	0.17032869	3.2231277	21	7 11.9	20.7
516926 2011 UY_{414}	18.0	X	199.16776	35.33900	79.56326	6.04315	0.0800075	0.28075291	2.3098647	21	8 16.3	21.1
516927 2011 WY_{2}	16.8	X	90.44947	312.19032	82.17879	15.76739	0.0753128	0.22210326	2.7004290	21	—	—
516928 2011 WZ_{105}	16.7	X	268.52624	73.28139	61.36022	27.70796	0.2009184	0.18543418	3.0456233	21	11 10.8	20.9
516929 2011 WJ_{128}	18.1	X	135.98975	319.99160	148.34663	24.29869	0.0789999	0.36019911	1.9563248	21	5 22.4	21.0
516930 2011 WQ_{134}	17.4	X	203.51535	338.01721	110.55114	24.71944	0.0570500	0.37088875	1.9185521	21	7 15.8	19.1
516931 2011 WS_{134}	17.7	X	347.62451	201.59777	80.65816	24.02086	0.0422528	0.36045981	1.9553814	21	6 10.2	19.1
516932 2011 YK_{27}	16.5	X	348.88540	280.37410	115.75242	16.25095	0.1016903	0.18483857	3.0521624	21	11 20.7	20.6
516933 2011 YA_{77}	16.9	X	286.59809	61.77892	60.36407	7.59246	0.1745688	0.18788603	3.0190691	21	11 20.2	20.6
516934 2012 AY_{10}	17.6	X	250.92300	265.33846	152.56693	24.36030	0.0667360	0.37104219	1.9180232	21	8 4.4	19.5
516935 2012 AM_{13}	16.2	X	325.02021	308.87531	118.47545	14.31781	0.1632015	0.18751014	3.0231025	21	11 20.9	19.8
516936 2012 AX_{24}	17.0	X	154.55490	245.32423	134.20728	6.29385	0.0910186	0.22531849	2.6746780	21	2 21.4	20.9
516937 2012 BB	15.8	X	31.75200	279.13070	108.47617	25.19516	0.1017641	0.19204455	2.9753272	21	—	—
516938 2012 BE_{3}	15.9	X	269.72603	352.07785	134.45824	28.36175	0.0662877	0.17975806	3.1094039	21	11 24.7	20.8
516939 2012 BS_{57}	17.0	X	304.30062	187.69251	295.93724	7.70847	0.0361542	0.19486265	2.9465715	21	—	—
516940 2012 BX_{69}	16.3	X	321.89053	322.96135	121.97617	14.04312	0.0349350	0.18561416	3.0436543	21	12 9.4	20.6
516941 2012 BO_{70}	16.4	X	211.07146	90.70900	118.17239	10.20050	0.0974584	0.18445872	3.0563512	21	12 13.5	21.0
516942 2012 BE_{71}	16.6	X	266.13603	9.16331	124.40771	10.46563	0.1029970	0.18286981	3.0740296	21	11 18.3	20.9
516943 2012 BB_{81}	16.7	X	315.29526	3.14133	103.56387	6.41508	0.0556443	0.19065032	2.9898153	21	12 25.7	20.5
516944 2012 BD_{94}	16.5	X	303.01924	71.95522	7.60821	10.09004	0.1083411	0.18112641	3.0937237	21	10 26.3	20.4
516945 2012 BA_{101}	16.7	X	209.64539	299.89446	268.19253	5.20012	0.2612334	0.17640867	3.1486382	21	11 24.8	21.9
516946 2012 BH_{111}	17.0	X	316.83934	266.83457	160.23456	2.59522	0.1514660	0.18043590	3.1016116	21	10 31.8	20.6
516947 2012 BK_{112}	16.4	X	223.34331	218.57447	319.98326	7.88137	0.1371750	0.17725440	3.1386149	21	11 11.8	21.4
516948 2012 BK_{142}	16.6	X	229.47325	251.34176	263.03877	14.88564	0.1890272	0.17758541	3.1347136	21	10 12.5	21.8
516949 2012 BZ_{155}	16.9	X	337.22997	320.01497	118.65273	4.70808	0.1142402	0.19155630	2.9803808	21	12 23.4	20.3
516950 2012 BL_{156}	16.4	X	201.76188	270.35341	287.93879	8.09975	0.0523760	0.17527993	3.1621412	21	11 21.8	21.2
516951 2012 BG_{157}	16.6	X	293.19597	101.45358	340.94030	12.77129	0.1551300	0.17759395	3.1346130	21	10 6.3	20.7
516952 2012 CX_{8}	16.6	X	249.25907	27.80793	138.67132	10.63057	0.0362072	0.18524145	3.0477355	21	12 14.8	21.0
516953 2012 CX_{15}	16.8	X	307.91183	331.90780	139.81499	10.57237	0.0156653	0.18615064	3.0378036	21	12 23.2	21.1
516954 2012 CV_{30}	16.9	X	283.32235	13.74040	114.50342	5.11327	0.0881736	0.18598923	3.0395610	21	12 4.7	20.8
516955 2012 CY_{51}	16.7	X	305.54860	276.52156	160.66781	10.94132	0.1127346	0.17688874	3.1429388	21	10 31.8	20.8
516956 2012 DO_{6}	16.5	X	267.19727	76.51824	50.17003	19.90214	0.2305997	0.18167966	3.0874399	21	10 25.2	20.8
516957 2012 DS_{20}	15.8	X	137.41053	311.12867	329.56431	8.59521	0.0600616	0.18024108	3.1038462	21	12 22.4	20.5
516958 2012 DZ_{24}	16.5	X	147.25737	177.25122	96.01344	5.75356	0.1070926	0.17165781	3.2064687	21	12 22.4	21.4
516959 2012 DV_{36}	15.9	X	246.39204	2.50361	160.16755	19.54502	0.1715625	0.17937456	3.1138342	21	11 20.5	20.8
516960 2012 DX_{45}	16.4	X	320.77727	76.15709	3.90983	18.12867	0.0553362	0.17280342	3.1922814	21	11 20.5	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
516961 2012 DE_{48}	16.1	X	5.17461	42.02369	353.66566	12.61676	0.0533659	0.17589618	3.1547511	21	11 30.3	20.6
516962 2012 DL_{71}	16.3	X	206.48049	241.50218	312.80726	13.06589	0.0244105	0.17633155	3.1495562	21	11 24.0	21.0
516963 2012 DE_{90}	16.3	X	262.83427	278.85142	201.86170	24.47246	0.2554603	0.17355860	3.1830146	21	10 2.2	21.1
516964 2012 DS_{90}	17.0	X	256.42605	117.78441	36.87485	1.11308	0.0889715	0.18028255	3.1033702	21	11 29.8	21.4
516965 2012 DR_{94}	16.7	X	249.62940	319.94640	160.20348	5.01084	0.0953358	0.17030384	3.2234413	21	10 10.0	21.3
516966 2012 DO_{101}	16.5	X	290.23569	116.35314	13.27051	10.88489	0.0342367	0.17898606	3.1183384	21	12 18.5	21.0
516967 2012 EL_{2}	16.1	X	234.90238	14.41904	158.92130	17.46054	0.1492246	0.17746612	3.1361181	21	11 22.8	21.1
516968 2012 FO_{38}	16.0	X	249.96802	329.62067	187.68919	13.93503	0.1464573	0.17799021	3.1299589	21	11 18.9	20.6
516969 2012 FN_{65}	15.8	X	321.42687	58.49285	15.50585	16.15612	0.1763879	0.17524333	3.1625815	21	11 9.2	19.6
516970 2012 FU_{65}	16.5	X	276.60108	310.53948	160.71497	13.43405	0.0749713	0.16982989	3.2294356	21	11 6.6	21.1
516971 2012 FQ_{75}	15.7	X	252.33021	115.14474	58.42361	13.11747	0.1350805	0.17897833	3.1184281	21	12 9.9	20.2
516972 2012 FG_{85}	17.3	X	333.68486	237.99372	61.82723	12.14216	0.1729703	0.22525563	2.6751755	21	6 3.3	20.2
516973 2012 FH_{85}	17.3	X	221.60733	306.16289	134.55402	2.14118	0.1014517	0.24191303	2.5509182	21	7 21.4	21.0
516974 2012 GJ_{21}	16.0	X	228.49896	128.71326	64.18205	19.65424	0.2063709	0.17095808	3.2152121	21	11 27.8	21.0
516975 2012 GG_{41}	16.0	X	256.38603	228.57224	86.52869	14.98715	0.1989050	0.20400037	2.8579113	21	3 21.1	20.9
516976 2012 HM_{1}	21.4	X	2.46243	71.99886	211.85093	7.56522	0.4809359	0.33109850	2.0693371	21	9 20.1	20.9
516977 2012 HZ_{84}	8.9	X	324.06547	86.60600	257.07741	5.44045	0.1993520	0.00312049	46.3789508	21	7 13.1	24.9
516978 2012 JL_{6}	18.0	X	293.77179	8.10725	306.45657	1.79706	0.1082823	0.32463919	2.0966958	21	4 21.3	20.3
516979 2012 JH_{37}	19.0	X	301.30235	173.67396	103.70099	1.09786	0.1548708	0.31475863	2.1403475	21	3 4.1	21.6
516980 2012 KJ_{1}	18.1	X	254.25074	26.83561	304.60825	1.82505	0.1614120	0.31853094	2.1234154	21	3 21.8	21.1
516981 2012 KD_{52}	16.8	X	13.85041	78.83278	247.86401	10.35954	0.2132929	0.22611020	2.6684308	21	10 11.6	19.7
516982 2012 OO_{6}	15.6	X	250.54766	185.60048	101.23207	11.91866	0.0943516	0.18090918	3.0961998	21	2 16.4	20.4
516983 2012 PM_{1}	17.5	X	7.55957	261.20883	251.64830	6.28835	0.0991912	0.28070428	2.3101314	21	—	—
516984 2012 PN_{28}	18.1	X	132.46248	174.83673	319.06590	24.50135	0.5321201	0.41486644	1.7804530	21	7 26.2	21.7
516985 2012 PS_{44}	17.3	X	326.91245	127.69222	212.79710	12.00342	0.1951224	0.21493090	2.7601763	21	7 15.8	20.4
516986 2012 QP_{10}	19.5	X	257.15561	271.70559	133.25511	15.66100	0.3545500	0.42445316	1.7535421	21	6 15.5	22.1
516987 2012 QE_{43}	17.8	X	149.57591	158.24107	198.16721	6.04072	0.1317703	0.27521271	2.3407609	21	1 11.5	21.0
516988 2012 QY_{52}	17.8	X	70.57217	104.23030	324.34785	5.08569	0.1260181	0.26551798	2.3973977	21	—	—
516989 2012 QZ_{52}	17.1	X	350.50743	195.43569	168.86823	3.51942	0.1275079	0.22400730	2.6851050	21	10 16.1	19.8
516990 2012 QC_{53}	17.2	X	85.30635	108.77535	201.51755	11.09012	0.2066410	0.23433309	2.6056353	21	12 23.8	21.5
516991 2012 RN_{14}	17.8	X	240.48001	117.54006	231.52271	3.19342	0.2412492	0.29617833	2.2289511	21	3 29.0	21.4
516992 2012 RS_{37}	17.5	X	237.86261	70.68491	246.74588	6.62185	0.1474496	0.28778058	2.2721050	21	2 17.5	21.0
516993 2012 RC_{41}	17.7	X	199.15973	331.36864	33.27087	8.30748	0.2301996	0.28701018	2.2761690	21	3 20.4	21.5
516994 2012 RL_{43}	17.7	X	219.14154	80.68846	274.25824	5.54123	0.2087296	0.29244721	2.2478693	21	3 18.1	21.4
516995 2012 SF_{28}	18.3	X	263.38495	151.11490	156.05560	2.92447	0.2270274	0.29367244	2.2416127	21	2 26.1	21.6
516996 2012 SH_{33}	17.8	X	289.42251	6.90484	259.98089	4.72290	0.1393561	0.29363020	2.2418277	21	2 6.8	20.8
516997 2012 SD_{69}	17.5	X	33.60213	190.43273	144.12858	3.21329	0.0576902	0.22415750	2.6839054	21	11 5.3	20.9
516998 2012 SP_{69}	17.9	X	203.86156	290.61067	16.91309	2.93456	0.0935150	0.26808351	2.3820780	21	1 8.4	21.2
516999 2012 TY_{24}	17.9	X	196.11163	310.83153	14.30280	2.50764	0.1890207	0.27099201	2.3650032	21	1 26.9	21.6
517000 2012 TR_{25}	17.6	X	84.47641	46.02053	24.30918	6.13250	0.0941156	0.26589250	2.3951460	21	1 19.7	20.3
517001 2012 TE_{54}	17.2	X	15.33373	81.56843	358.69247	8.42069	0.1985309	0.24035125	2.5619567	21	—	—
517002 2012 TE_{64}	17.8	X	163.38879	342.91805	9.09583	13.10573	0.2303454	0.27138654	2.3627105	21	2 7.1	21.7
517003 2012 TW_{83}	18.0	X	235.19324	333.91001	315.40829	1.91673	0.1587289	0.27619424	2.3352119	21	1 15.7	21.7
517004 2012 TT_{104}	18.5	X	269.63900	290.33686	4.76678	5.04303	0.1536638	0.28908243	2.2652784	21	2 24.5	21.8
517005 2012 TV_{123}	17.5	X	314.65099	342.00988	111.61102	15.43598	0.4250726	0.22012994	2.7165433	21	11 21.6	19.0
517006 2012 TH_{137}	17.8	X	159.47459	274.91181	101.71079	5.46002	0.1161151	0.27724498	2.3293080	21	2 18.9	21.0
517007 2012 TQ_{212}	18.0	X	53.47234	40.42325	30.76700	3.48631	0.1475701	0.25663510	2.4524040	21	—	—
517008 2012 TA_{261}	17.2	X	61.16825	357.91630	70.76516	7.05434	0.1010968	0.25647364	2.4534331	21	—	—
517009 2012 TY_{295}	18.1	X	251.88546	256.45862	58.39407	5.43775	0.2069475	0.29326874	2.2436694	21	3 1.7	21.7
517010 2012 TN_{299}	17.7	X	84.46552	22.22056	30.25027	6.83513	0.1217145	0.25928297	2.4356790	21	—	—
517011 2012 TZ_{307}	17.2	X	27.21901	27.07319	23.21903	6.05197	0.2500544	0.23568770	2.5956418	21	—	—
517012 2012 TW_{313}	17.6	X	168.97735	331.00535	45.29206	6.69260	0.1197041	0.27425744	2.3461932	21	3 3.4	21.0
517013 2012 TS_{326}	17.2	X	321.28851	329.74436	83.43693	10.58243	0.1671439	0.21855366	2.7295894	21	10 31.9	20.1
517014 2012 TZ_{326}	16.9	X	291.67347	20.51227	65.94086	14.66067	0.1566095	0.21095687	2.7947326	21	10 25.1	20.3
517015 2012 TA_{327}	17.1	X	111.35317	72.94295	224.86741	14.22581	0.1538460	0.23801034	2.5787278	21	12 28.3	21.4
517016 2012 UW_{67}	16.4	X	20.81889	325.29475	65.89006	34.40854	0.2558659	0.23283404	2.6168072	21	—	—
517017 2012 UB_{73}	18.0	X	290.65688	241.21567	50.28709	2.99925	0.1840981	0.29387808	2.2405669	21	3 10.7	20.9
517018 2012 UT_{81}	17.5	X	168.45843	307.50535	37.16528	1.59351	0.2098923	0.26706659	2.3881211	21	1 27.9	21.1
517019 2012 UL_{86}	18.2	X	226.68721	96.78008	228.07956	5.49669	0.1709026	0.27909298	2.3190144	21	2 17.7	21.9
517020 2012 UZ_{89}	17.4	X	323.38743	251.43092	232.51804	12.37462	0.2087225	0.23152486	2.6266626	21	—	—
517021 2012 US_{98}	17.4	X	227.41036	221.68850	35.56334	8.39939	0.0522071	0.25540711	2.4602584	21	—	—
517022 2012 UW_{146}	17.4	X	238.13517	34.13812	260.32477	3.60940	0.1486211	0.27394248	2.3479912	21	1 24.2	21.1
517023 2012 UB_{152}	17.7	X	37.07136	323.36041	90.04918	3.49705	0.2010317	0.23979544	2.5659141	21	—	—
517024 2012 UE_{169}	17.5	X	353.05987	286.91310	144.38671	7.49252	0.2860725	0.23179834	2.6245962	21	—	—
517025 2012 UU_{179}	17.5	X	339.65744	9.15511	83.52176	11.86735	0.0931306	0.23307341	2.6150152	21	—	—
517026 2012 UW_{179}	16.5	X	354.22996	74.98271	197.86111	3.00505	0.0707943	0.18508612	3.0494404	21	6 12.6	20.4
517027 2012 VM_{12}	17.6	X	321.15672	157.89030	56.26523	4.00639	0.1611864	0.27069346	2.3667418	21	1 10.1	20.6
517028 2012 VN_{14}	17.8	X	130.26532	348.85187	18.85540	2.04748	0.1870637	0.26109269	2.4244109	21	1 15.3	21.0
517029 2012 VL_{16}	17.9	X	257.16800	240.49780	45.39954	6.05840	0.1616885	0.28251914	2.3002276	21	2 1.6	21.5
517030 2012 VR_{60}	18.1	X	247.17536	238.98358	66.67875	6.85062	0.1371719	0.27756080	2.3275407	21	2 19.8	21.6
517031 2012 VZ_{91}	18.3	X	348.57634	276.30909	206.55049	4.17012	0.2014041	0.23872118	2.5736061	21	—	—
517032 2012 XB_{47}	16.8	X	52.90220	96.71531	224.19356	5.23134	0.0183675	0.21109520	2.7935116	21	11 4.1	20.4
517033 2012 XZ_{83}	16.5	X	18.67260	345.04505	108.37574	22.87777	0.0522853	0.23246902	2.6195458	21	—	—
517034 2012 XH_{97}	17.6	X	354.11674	141.30985	351.43425	2.85780	0.1360802	0.24278037	2.5448391	21	—	—
517035 2012 XS_{119}	18.8	X	155.50389	77.64795	86.61970	14.81794	0.1132245	0.41216744	1.7882172	21	9 19.1	21.2
517036 2012 XW_{145}	17.4	X	143.07190	182.13571	182.01927	6.11846	0.1415207	0.25741020	2.4474785	21	1 18.6	20.8
517037 2012 XU_{158}	16.5	X	54.17944	2.49557	73.72767	15.90809	0.0533035	0.24038490	2.5617177	21	—	—
517038 2012 YG_{10}	16.3	X	11.38093	297.91765	131.48457	10.19294	0.0259331	0.20136918	2.8827527	21	—	—
517039 2013 AG_{7}	17.1	X	320.27400	342.19910	131.73717	14.65362	0.0746143	0.22006521	2.7170760	21	—	—
517040 2013 AT_{7}	17.2	X	278.01418	218.11335	306.42549	6.65251	0.2056432	0.21441942	2.7645639	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517041 2013 AQ_{21}	16.7	X	347.69772	12.51607	108.12481	15.01142	0.0462927	0.22784004	2.6549072	21	—	—
517042 2013 AU_{23}	17.1	X	247.39591	116.81144	105.31193	13.36882	0.2110684	0.22071537	2.7117376	21	—	—
517043 2013 AH_{28}	16.5	X	24.09452	275.46330	136.66758	13.34575	0.2654489	0.22416247	2.6838657	21	—	—
517044 2013 AG_{29}	16.7	X	240.40010	277.07650	293.18804	8.06482	0.1217156	0.21490166	2.7604266	21	—	—
517045 2013 AN_{40}	17.7	X	28.43644	181.51279	273.49884	2.88981	0.0518510	0.23327610	2.6135003	21	—	—
517046 2013 AA_{53}	19.4	X	38.60544	195.93454	98.36687	27.86830	0.6672511	0.67869686	1.2823862	21	—	—
517047 2013 AN_{57}	17.7	X	313.10895	26.10414	109.83322	12.79835	0.2022767	0.22129550	2.7069963	21	—	—
517048 2013 AJ_{58}	17.1	X	343.98071	13.86994	114.22647	9.46501	0.1393633	0.22831824	2.6511989	21	—	—
517049 2013 AF_{85}	17.0	X	228.18814	246.67254	325.68118	4.11903	0.0823098	0.21901856	2.7257254	21	—	—
517050 2013 AU_{85}	17.3	X	263.36548	130.85349	103.71396	9.68851	0.1304041	0.23628496	2.5912660	21	—	—
517051 2013 AN_{101}	17.2	X	311.17822	251.09629	249.52796	7.59764	0.1453573	0.22297316	2.6934009	21	—	—
517052 2013 AO_{104}	16.5	X	296.75780	197.07605	314.18080	8.18507	0.0709116	0.21587313	2.7521387	21	—	—
517053 2013 AC_{105}	16.4	X	313.40416	4.24008	140.93447	11.77698	0.0709934	0.21832339	2.7315084	21	—	—
517054 2013 AL_{108}	17.3	X	312.69763	23.66328	148.41841	2.70570	0.0966801	0.23093661	2.6311212	21	—	—
517055 2013 AX_{108}	17.5	X	240.20898	116.77577	128.81651	3.16283	0.0494022	0.23284290	2.6167408	21	—	—
517056 2013 AX_{131}	16.8	X	234.77051	79.94868	148.08976	14.19615	0.1319842	0.21303476	2.7765302	21	—	—
517057 2013 AW_{134}	17.4	X	308.16675	47.17325	116.12465	14.12386	0.2005281	0.23332577	2.6131294	21	—	—
517058 2013 AX_{169}	17.8	X	318.10722	356.87300	151.71012	12.57309	0.1244817	0.22652682	2.6651580	21	—	—
517059 2013 AK_{171}	17.6	X	317.89900	295.56540	218.98379	8.32373	0.0309012	0.22993802	2.6387334	21	—	—
517060 2013 AW_{184}	17.5	X	183.10273	156.98552	156.74551	9.32665	0.0909213	0.23675345	2.5878465	21	—	—
517061 2013 CU_{12}	17.1	X	243.08434	110.31331	89.90429	5.99721	0.0949679	0.21251508	2.7810548	21	—	—
517062 2013 CP_{20}	16.7	X	114.64119	35.51833	309.62639	13.30359	0.0555298	0.22548251	2.6733807	21	—	—
517063 2013 CV_{21}	17.1	X	257.56843	180.34932	26.56777	3.71512	0.1301995	0.21661813	2.7458249	21	—	—
517064 2013 CM_{36}	17.5	X	309.05753	78.34444	28.54246	28.71710	0.4447080	0.21581838	2.7526041	21	11 1.4	19.4
517065 2013 CT_{40}	17.0	X	344.87858	339.39528	139.69682	14.48016	0.1990346	0.22715735	2.6602238	21	—	—
517066 2013 CH_{41}	16.7	X	277.43598	307.16733	250.12854	4.81881	0.1499788	0.22372290	2.6873801	21	—	—
517067 2013 CB_{45}	17.2	X	42.59519	286.56988	118.32973	7.16141	0.0344362	0.21658293	2.7461225	21	—	—
517068 2013 CU_{47}	17.0	X	283.05484	92.76735	75.97055	4.07458	0.0553836	0.21429481	2.7656355	21	—	—
517069 2013 CH_{57}	16.2	X	226.16436	189.83517	290.68664	15.10957	0.1708729	0.18584120	3.0411748	21	8 30.4	21.3
517070 2013 CX_{57}	16.8	X	274.03699	41.35608	171.53042	11.89522	0.1362611	0.22235986	2.6983511	21	—	—
517071 2013 CX_{69}	16.8	X	300.27976	48.17071	117.10859	5.83142	0.0473000	0.22151123	2.7052385	21	—	—
517072 2013 CS_{70}	17.2	X	264.25778	357.61540	208.85229	5.43594	0.0375727	0.22515241	2.6759931	21	—	—
517073 2013 CE_{75}	17.0	X	303.52547	353.01693	160.88480	8.67705	0.1564787	0.21730405	2.7400437	21	—	—
517074 2013 CT_{77}	16.9	X	308.09204	51.65371	96.88078	5.86061	0.0544508	0.21953501	2.7214489	21	—	—
517075 2013 CJ_{90}	17.0	X	310.48376	353.18535	161.40032	8.15029	0.1081224	0.21704702	2.7422065	21	—	—
517076 2013 CT_{90}	17.6	X	331.78727	5.92597	120.26256	3.92471	0.1216048	0.22158750	2.7046176	21	—	—
517077 2013 CK_{93}	17.4	X	197.40355	106.42568	150.65397	3.26311	0.0857459	0.21542886	2.7559212	21	—	—
517078 2013 CD_{95}	17.4	X	173.82924	138.80479	165.77062	4.98751	0.0280962	0.22530411	2.6747918	21	—	—
517079 2013 CZ_{97}	17.3	X	334.78167	347.87790	145.70400	8.70369	0.0655529	0.22301604	2.6930555	21	—	—
517080 2013 CG_{102}	17.1	X	104.91879	246.21491	99.01901	7.32089	0.0343412	0.21711761	2.7416121	21	—	—
517081 2013 CF_{108}	16.8	X	228.37299	262.11007	340.65923	10.77454	0.1435992	0.21674919	2.7447180	21	—	—
517082 2013 CN_{109}	17.2	X	24.71744	53.80359	6.99597	6.35146	0.0203341	0.21614909	2.7497958	21	—	—
517083 2013 CC_{110}	17.2	X	326.94843	62.38888	61.39126	4.22131	0.0377006	0.21737236	2.7394697	21	—	—
517084 2013 CP_{117}	17.1	X	302.49795	25.23376	120.94778	9.17200	0.1633671	0.21399640	2.7682060	21	—	—
517085 2013 CU_{125}	17.3	X	255.39680	258.24367	280.73905	8.64887	0.0585531	0.20954395	2.8072815	21	—	—
517086 2013 CX_{135}	16.3	X	353.51628	21.47135	115.02470	22.86750	0.0678488	0.23028115	2.6361116	21	—	—
517087 2013 CE_{148}	17.4	X	327.49072	133.83405	10.30723	5.18961	0.0583830	0.22137059	2.7063841	21	—	—
517088 2013 CA_{156}	16.9	X	195.96151	134.18368	152.47071	9.74749	0.0815411	0.22095341	2.7097897	21	—	—
517089 2013 CV_{159}	17.7	X	238.60906	173.67052	45.55191	1.82047	0.1796523	0.20993758	2.8037713	21	—	—
517090 2013 CX_{164}	17.3	X	200.87966	228.19846	16.98651	3.87753	0.0477938	0.20996658	2.8035132	21	—	—
517091 2013 CN_{175}	17.1	X	123.69074	157.35272	166.47884	6.72514	0.0520718	0.21279231	2.7786388	21	—	—
517092 2013 CH_{180}	17.3	X	301.79738	350.69307	139.41106	20.94369	0.1666156	0.21569992	2.7536119	21	—	—
517093 2013 CJ_{184}	16.9	X	354.28458	116.02292	342.24387	8.18472	0.0926205	0.22184664	2.7025110	21	—	—
517094 2013 CC_{205}	17.0	X	203.10954	286.58193	335.04999	3.56020	0.1383814	0.21487153	2.7606847	21	—	—
517095 2013 CJ_{214}	17.3	X	322.44051	322.17591	173.78195	4.64540	0.0710503	0.21964116	2.7205720	21	—	—
517096 2013 CT_{214}	17.1	X	263.87926	329.79949	223.32877	2.76133	0.1403419	0.21412784	2.7670730	21	—	—
517097 2013 CP_{222}	16.2	X	213.16518	336.90456	259.29925	12.70555	0.1574618	0.21029349	2.8006069	21	—	—
517098 2013 CP_{224}	16.8	X	241.57296	148.75894	71.23639	10.53656	0.1544973	0.21003634	2.8028924	21	—	—
517099 2013 CQ_{224}	17.2	X	8.97067	225.55074	203.81344	4.51255	0.1419964	0.21413627	2.7670004	21	—	—
517100 2013 DS_{13}	17.6	X	259.71411	347.25217	205.83419	7.58838	0.1485284	0.21276068	2.7789142	21	—	—
517101 2013 EM_{3}	17.0	X	280.61796	148.61778	22.95988	14.59064	0.1449640	0.21091974	2.7950606	21	—	—
517102 2013 ET_{19}	17.0	X	74.44829	204.87500	166.21350	5.65992	0.0356239	0.21174828	2.7877648	21	—	—
517103 2013 EM_{20}	19.9	X	140.60525	350.15345	73.89354	8.36341	0.3179132	0.61382964	1.3712106	21	3 19.8	19.8
517104 2013 EO_{53}	17.4	X	9.69647	93.49371	350.67135	3.80126	0.0381718	0.21305302	2.7763716	21	—	—
517105 2013 EH_{102}	16.5	X	146.08226	141.88327	166.76932	15.36611	0.1512888	0.20268989	2.8702165	21	—	—
517106 2013 EC_{113}	17.2	X	46.95806	272.17159	175.31959	21.06325	0.1212166	0.22980720	2.6397348	21	—	—
517107 2013 EF_{117}	17.1	X	348.09159	272.26115	161.11397	7.45750	0.2419759	0.21262123	2.7801291	21	—	—
517108 2013 EU_{126}	16.9	X	313.37292	321.17138	175.13235	13.57881	0.1489787	0.21184352	2.7869291	21	—	—
517109 2013 EE_{142}	17.0	X	346.51001	354.42044	149.64114	8.36656	0.0931243	0.23077216	2.6323711	21	—	—
517110 2013 FE_{20}	17.2	X	212.64589	118.12636	123.02910	2.91012	0.1615076	0.20241083	2.8728540	21	—	—
517111 2013 FH_{29}	16.8	X	159.13500	121.33441	134.19172	2.07508	0.1551152	0.18428947	3.0582222	21	12 14.5	21.7
517112 2013 GO	17.4	X	244.52066	114.48630	93.96402	6.70686	0.1696123	0.20366921	2.8610084	21	—	—
517113 2013 GL_{17}	18.6	X	71.44170	93.85498	180.65666	22.21652	0.0586036	0.41004881	1.7943714	21	11 7.9	20.6
517114 2013 GK_{42}	16.4	X	306.61165	104.90823	31.31613	15.38563	0.0965938	0.20280443	2.8691357	21	—	—
517115 2013 GG_{45}	16.6	X	155.74829	208.11963	23.29059	15.92278	0.0231598	0.18032762	3.1028531	21	11 9.7	21.2
517116 2013 GJ_{52}	16.5	X	186.00206	4.39547	186.40704	20.56223	0.0984242	0.17453846	3.1710905	21	10 27.6	21.5
517117 2013 GV_{90}	16.6	X	156.92238	75.88272	200.51365	18.23737	0.0722251	0.18700196	3.0285769	21	—	—
517118 2013 GD_{97}	16.8	X	222.11667	154.66577	39.54866	9.19727	0.1562435	0.19138436	2.9821656	21	11 30.3	21.4
517119 2013 GF_{115}	17.2	X	288.25155	346.65664	198.18793	13.39885	0.1284999	0.21687038	2.7436954	21	—	—
517120 2013 GA_{126}	16.6	X	168.47963	212.54794	65.06400	13.79387	0.1254117	0.18937122	3.0032632	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517121 2013 GN_{139}	17.6	X	34.00791	327.12230	299.94538	1.47030	0.0575304	0.26613228	2.3937071	21	8 7.0	20.2
517122 2013 GP_{139}	16.8	X	186.81165	133.22241	116.19742	7.20854	0.1095076	0.18802885	3.0175402	21	—	—
517123 2013 GW_{139}	16.5	X	195.92012	30.38863	203.47156	10.44811	0.0798532	0.18624738	3.0367516	21	12 27.2	21.2
517124 2013 HN	18.5	X	52.24781	156.53290	50.89720	22.27545	0.0453863	0.37810904	1.8940496	21	5 27.4	20.0
517125 2013 HG_{4}	17.0	X	202.88720	100.85692	119.40035	6.94868	0.1146786	0.19141435	2.9818541	21	12 17.3	21.6
517126 2013 HN_{10}	17.0	X	254.10579	71.23406	99.53261	11.47607	0.2040402	0.19878619	2.9076709	21	12 5.2	21.0
517127 2013 HQ_{42}	17.0	X	166.46348	302.19977	330.36464	4.84592	0.0465625	0.19515613	2.9436166	21	—	—
517128 2013 HQ_{65}	17.4	X	160.49690	294.08633	318.25961	3.78224	0.0880152	0.18704749	3.0280855	21	12 13.3	22.0
517129 2013 HE_{88}	17.2	X	170.25925	227.74177	30.09634	1.54609	0.1009280	0.19205233	2.9752468	21	12 29.9	21.9
517130 2013 HJ_{98}	16.9	X	265.24663	301.81287	210.15517	8.49707	0.0742261	0.19303339	2.9651575	21	12 12.6	20.9
517131 2013 HZ_{106}	17.4	X	285.76624	50.00471	51.65606	2.22154	0.1300732	0.18583144	3.0412812	21	10 29.9	21.3
517132 2013 HG_{117}	17.1	X	280.52213	265.83518	198.57353	10.80568	0.1936802	0.18689267	3.0297575	21	10 16.7	20.9
517133 2013 HB_{118}	17.0	X	223.98474	353.95986	193.78521	9.83785	0.0485823	0.18864588	3.0109566	21	12 8.8	21.4
517134 2013 JP_{7}	18.0	X	206.32706	36.62426	55.23184	22.79691	0.0926332	0.38656673	1.8663213	21	7 28.6	20.7
517135 2013 JJ_{8}	16.4	X	227.97718	115.24616	61.23920	13.32769	0.1028756	0.18211076	3.0825655	21	11 21.6	21.0
517136 2013 JM_{16}	17.0	X	195.85171	64.85770	176.89638	10.39790	0.0629460	0.19275778	2.9679832	21	—	—
517137 2013 JR_{27}	15.8	X	121.11758	212.90568	117.58217	19.63313	0.1869690	0.18507694	3.0495412	21	—	—
517138 2013 JY_{28}	18.4	X	15.05750	120.13506	194.78469	18.80724	0.1200396	0.39075527	1.8529605	21	10 16.9	19.3
517139 2013 JR_{37}	18.3	X	116.33892	93.01760	98.14480	24.02122	0.0553043	0.38835919	1.8605742	21	9 3.6	20.9
517140 2013 JY_{54}	16.7	X	176.33217	48.78338	213.92857	8.43700	0.0743236	0.18903761	3.0067956	21	—	—
517141 2013 JK_{60}	15.9	X	151.91435	191.51456	91.91379	13.44828	0.1246255	0.18239795	3.0793289	21	—	—
517142 2013 JL_{61}	18.5	X	186.97184	47.01525	56.17663	22.73028	0.0312755	0.38218222	1.8805681	21	7 19.6	21.0
517143 2013 JQ_{62}	16.2	X	131.36399	222.57909	84.65434	8.81357	0.1204779	0.18590153	3.0405168	21	—	—
517144 2013 JQ_{63}	16.2	X	139.81641	80.24157	191.37509	22.06666	0.1938935	0.17744183	3.1364043	21	12 15.8	21.9
517145 2013 KR	16.2	X	164.15160	170.95901	48.03162	26.59334	0.0651914	0.17350920	3.1836186	21	11 7.7	21.0
517146 2013 KZ_{2}	18.2	X	314.56024	205.56584	96.18788	25.81316	0.0613078	0.36753835	1.9301939	21	5 21.4	20.5
517147 2013 KA_{6}	17.8	X	335.82512	247.94975	87.43967	24.87354	0.0656693	0.38445099	1.8731622	21	9 6.6	20.0
517148 2013 KF_{8}	16.9	X	157.32137	303.06850	344.20173	0.56457	0.2228008	0.18376853	3.0639990	21	—	—
517149 2013 KW_{8}	16.5	X	174.14108	32.02639	205.72745	5.84834	0.1621342	0.17963429	3.1108320	21	12 6.4	21.6
517150 2013 KD_{9}	16.4	X	143.41553	214.54631	73.56449	16.47629	0.2220442	0.17844123	3.1246827	21	—	—
517151 2013 KG_{11}	16.2	X	123.66175	233.01949	71.44798	17.68231	0.2186205	0.17731435	3.1379074	21	—	—
517152 2013 KE_{16}	16.0	X	145.65364	37.37228	241.86030	9.30654	0.1164519	0.18207024	3.0830228	21	12 28.7	21.0
517153 2013 KP_{16}	16.5	X	206.86686	143.44739	95.96435	12.81397	0.1766225	0.19023943	2.9941187	21	—	—
517154 2013 LY	18.5	X	58.25688	142.35680	97.60827	24.22857	0.1218149	0.38139760	1.8831464	21	9 4.8	20.9
517155 2013 LS_{2}	17.1	X	181.72476	92.83800	141.11835	1.76962	0.1415282	0.18031512	3.1029965	21	12 9.4	22.1
517156 2013 LK_{6}	16.8	X	169.21747	197.83958	73.18266	3.52707	0.2780219	0.18451715	3.0557059	21	—	—
517157 2013 LA_{17}	17.0	X	148.78363	227.36861	85.68073	0.69892	0.3024204	0.18592287	3.0402841	21	—	—
517158 2013 LA_{26}	18.4	X	37.77004	49.72460	196.17704	22.13052	0.0608715	0.37569316	1.9021606	21	7 9.8	20.7
517159 2013 LP_{29}	18.1	X	333.04026	210.26270	114.30335	24.18606	0.1353765	0.37658089	1.8991701	21	7 18.6	18.6
517160 2013 MX	18.2	X	18.43015	191.85572	104.37782	23.35211	0.0533151	0.38376355	1.8753985	21	9 19.2	20.4
517161 2013 MW_{2}	15.9	X	103.37641	191.49850	134.44799	16.83380	0.2614481	0.17515459	3.1636495	21	—	—
517162 2013 MD_{9}	18.3	X	66.44984	74.83916	143.78305	23.82061	0.0827519	0.36410188	1.9423199	21	7 24.0	20.3
517163 2013 NT_{26}	16.7	X	285.52525	193.80062	192.31933	15.58110	0.2145573	0.22351639	2.6890350	21	7 8.2	20.6
517164 2013 NU_{26}	16.9	X	96.55512	96.96522	286.02810	11.08197	0.1570477	0.17663858	3.1459055	21	1 5.6	21.2
517165 2013 NV_{26}	18.1	X	35.03819	191.72260	176.44907	6.73190	0.1099493	0.27634158	2.3343818	21	—	—
517166 2013 NY_{26}	18.2	X	191.47492	63.71002	194.51461	6.97352	0.0677941	0.29649576	2.2273599	21	—	—
517167 2013 NA_{27}	16.9	X	131.46557	208.60706	155.11436	4.51276	0.1381137	0.18176936	3.0864241	21	1 19.5	21.4
517168 2013 OF_{12}	17.1	X	284.57560	112.10733	231.82680	7.22744	0.1324309	0.21469416	2.7622049	21	5 26.3	20.7
517169 2013 OG_{12}	16.2	X	191.70750	272.57191	60.03342	7.10831	0.2226716	0.18204091	3.0833540	21	2 14.9	21.6
517170 2013 PW_{7}	16.8	X	184.47513	89.39501	200.49569	10.86792	0.2661480	0.18357272	3.0661774	21	—	—
517171 2013 PY_{74}	18.3	X	277.93007	199.05538	156.59198	23.91112	0.0711855	0.35182464	1.9872472	21	6 10.8	21.1
517172 2013 PG_{77}	16.2	X	130.74276	92.07324	312.48131	7.81638	0.1333447	0.18746724	3.0235638	21	3 4.7	20.8
517173 2013 PL_{77}	16.9	X	173.70525	163.14171	162.42286	1.85784	0.0974896	0.18147104	3.0898056	21	1 14.3	21.7
517174 2013 PQ_{77}	17.5	X	304.63376	145.08801	132.00999	7.66700	0.1647964	0.21519915	2.7578820	21	3 23.5	21.3
517175 2013 PR_{77}	16.9	X	137.52043	303.57666	156.26206	6.60775	0.0173612	0.21251648	2.7810426	21	5 9.3	20.8
517176 2013 PW_{77}	16.3	X	27.45061	147.88411	314.80547	7.93879	0.0562099	0.17536286	3.1611442	21	—	—
517177 2013 PA_{78}	16.8	X	105.50694	126.81583	295.71866	3.71135	0.1710804	0.18226226	3.0808570	21	3 4.8	21.2
517178 2013 QX_{95}	16.1	X	149.61625	275.94370	80.27075	11.20978	0.1169327	0.17851577	3.1238127	21	1 30.3	20.9
517179 2013 RY_{3}	17.2	X	350.10990	307.29872	181.35951	24.14364	0.2816245	0.28146755	2.3059532	21	—	—
517180 2013 RC_{102}	17.5	X	207.08516	126.75139	238.72387	1.12886	0.0826917	0.20276126	2.8695429	21	4 1.7	21.9
517181 2013 RD_{102}	17.3	X	188.10877	55.47718	311.63576	1.00894	0.0936050	0.19855639	2.9099139	21	3 15.8	21.8
517182 2013 RG_{102}	16.5	X	112.74875	240.88010	186.52058	5.38244	0.1346107	0.18167694	3.0874707	21	3 15.2	21.0
517183 2013 RK_{102}	16.2	X	150.02879	170.81073	194.07626	6.28946	0.1521840	0.18128109	3.0919637	21	2 8.8	21.1
517184 2013 RL_{102}	16.9	X	251.91418	266.65208	9.46106	5.24626	0.2219859	0.19263541	2.9692400	21	1 24.7	22.0
517185 2013 RM_{102}	16.2	X	107.56384	94.50007	311.03110	9.86141	0.0888898	0.17836560	3.1255658	21	2 5.0	20.4
517186 2013 RN_{102}	16.0	X	161.80934	97.40949	228.75766	8.56870	0.1240353	0.17085704	3.2164796	21	1 6.2	21.0
517187 2013 RO_{102}	17.2	X	236.02812	204.91194	204.88204	3.55425	0.0999738	0.21255608	2.7806972	21	6 27.0	21.2
517188 2013 RP_{102}	17.0	X	251.84722	8.11918	30.58434	9.19790	0.1567119	0.21487888	2.7606217	21	6 24.1	21.3
517189 2013 TG_{163}	16.7	X	270.23463	323.99123	359.44615	9.46118	0.2181350	0.20981356	2.8048761	21	4 1.5	21.1
517190 2013 TL_{163}	16.6	X	93.60156	33.85884	52.34245	10.97573	0.1143386	0.17908890	3.1171445	21	3 18.7	21.0
517191 2013 TQ_{163}	17.2	X	243.56653	269.25783	102.31379	3.06342	0.0660667	0.20591494	2.8401687	21	5 21.8	21.3
517192 2013 TU_{163}	16.8	X	308.65002	311.04646	101.44644	13.68857	0.1718244	0.22485100	2.6783840	21	10 10.4	19.9
517193 2013 TW_{163}	17.4	X	251.92939	26.38851	10.65154	6.26867	0.0593543	0.21730785	2.7400119	21	7 5.5	21.2
517194 2013 TX_{163}	16.8	X	248.47304	77.84400	234.94234	4.36897	0.1438964	0.18819546	3.0157589	21	3 7.3	21.5
517195 2013 UQ_{18}	16.8	X	271.09467	274.30117	62.16336	6.97871	0.1031126	0.20692661	2.8309041	21	5 5.1	20.9
517196 2013 US_{18}	16.2	X	121.78339	5.33322	73.95303	12.68008	0.1208384	0.17743968	3.1364296	21	4 13.9	21.0
517197 2013 UT_{18}	15.5	X	325.74379	7.80182	222.43446	16.90818	0.0532356	0.18488177	3.0516870	21	3 3.9	20.0
517198 2013 UU_{18}	16.0	X	84.39837	250.47552	253.24802	9.12364	0.1101902	0.18641582	3.0349221	21	5 10.2	20.1
517199 2013 VA_{26}	17.3	X	278.74331	331.90559	55.15336	3.61839	0.0906665	0.21820398	2.7325049	21	7 22.9	21.0
517200 2013 VB_{26}	17.2	X	229.73069	306.98511	115.37401	5.72024	0.0533341	0.21298987	2.7769203	21	7 11.2	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517201 2013 VC_{26}	16.8	X	183.44990	73.97907	99.88786	15.71291	0.1638976	0.21415176	2.7668670	21	10 12.1	21.6
517202 2013 VE_{26}	16.7	X	300.20985	275.25685	130.43587	5.88745	0.1237021	0.22185875	2.7024127	21	9 15.4	19.8
517203 2013 VF_{26}	17.2	X	254.65938	172.02103	178.52852	2.11262	0.0848926	0.19845192	2.9109350	21	5 6.2	21.3
517204 2013 VH_{26}	17.7	X	256.05591	242.78055	156.92676	4.39515	0.1975031	0.21536409	2.7564737	21	6 25.3	21.8
517205 2013 XR_{26}	17.5	X	21.57341	86.14987	90.27924	6.58666	0.0346170	0.29596093	2.2300424	21	3 3.5	20.0
517206 2013 XT_{26}	17.3	X	309.46249	171.44831	262.83868	8.76131	0.0983360	0.23487199	2.6016482	21	11 11.1	20.4
517207 2013 YQ_{5}	17.9	X	56.55700	173.96514	286.09487	9.21572	0.0676369	0.27999919	2.3140080	21	1 8.1	20.1
517208 2013 YY_{19}	17.6	X	99.38057	310.43000	119.96216	22.78773	0.2493555	0.28985809	2.2612353	21	3 9.5	20.5
517209 2013 YC_{43}	17.9	X	43.95060	30.43916	59.97340	2.92662	0.1559132	0.27289225	2.3540115	21	—	—
517210 2013 YS_{115}	18.2	X	20.39327	11.83663	119.08376	4.22830	0.1854240	0.27385804	2.3484738	21	—	—
517211 2013 YW_{122}	17.9	X	15.02359	255.61843	259.11655	3.68225	0.1493819	0.28123521	2.3072231	21	1 8.4	19.9
517212 2013 YE_{149}	17.4	X	2.54951	20.16910	110.73770	9.30301	0.2281557	0.26509280	2.3999605	21	—	—
517213 2013 YV_{152}	17.7	X	269.63212	337.36753	131.54839	5.96031	0.1448781	0.22815810	2.6524393	21	10 23.2	21.0
517214 2013 YW_{152}	17.2	X	299.99031	269.36387	134.92235	5.47217	0.1120509	0.22014811	2.7163939	21	9 14.1	20.4
517215 2013 YX_{152}	17.1	X	323.14968	241.72661	138.51654	6.52759	0.0960881	0.21883970	2.7272104	21	9 20.8	20.3
517216 2014 AV_{6}	18.0	X	341.69010	74.08924	105.18595	4.57288	0.0860802	0.27729206	2.3290444	21	—	—
517217 2014 AK_{57}	17.1	X	213.11230	145.78948	70.01167	9.45995	0.0853151	0.24366974	2.5386431	21	—	—
517218 2014 AL_{57}	17.7	X	288.08850	227.62461	282.70241	3.08572	0.1755577	0.24010618	2.5636997	21	—	—
517219 2014 AN_{57}	16.8	X	232.20078	12.13972	145.74293	17.31905	0.0960874	0.22547499	2.6734401	21	11 16.4	20.9
517220 2014 BR_{6}	17.8	X	15.74440	19.26415	127.00189	9.45774	0.1468837	0.27427244	2.3461077	21	—	—
517221 2014 BZ_{9}	17.6	X	31.23990	1.20584	101.31074	25.47673	0.1790352	0.27102313	2.3648221	21	—	—
517222 2014 BX_{10}	18.4	X	6.54866	119.17271	43.42403	4.46496	0.1099894	0.28107437	2.3081032	21	1 11.6	20.8
517223 2014 BX_{12}	17.5	X	314.62181	79.50783	124.62261	6.76771	0.0448291	0.27333901	2.3514458	21	1 4.3	20.5
517224 2014 BD_{17}	18.0	X	34.39312	348.29003	108.67595	3.25194	0.1691705	0.27097841	2.3650823	21	—	—
517225 2014 BA_{21}	17.7	X	62.18072	323.49648	136.36215	7.20190	0.2050593	0.27932128	2.3177506	21	1 26.7	19.0
517226 2014 BT_{33}	18.2	X	12.06188	35.89749	94.08769	3.30742	0.1565930	0.26829536	2.3808239	21	—	—
517227 2014 BR_{35}	17.3	X	343.60135	339.72386	98.53918	4.30031	0.1685541	0.24166085	2.5526926	21	—	—
517228 2014 BD_{46}	18.1	X	31.37655	313.74512	137.94156	9.07283	0.1610658	0.26327957	2.4109671	21	—	—
517229 2014 BP_{54}	18.2	X	304.82929	24.28109	189.24679	1.14879	0.1364974	0.26986677	2.3715727	21	—	—
517230 2014 BX_{58}	16.5	X	163.56255	121.16024	313.26443	9.64612	0.2447127	0.17744147	3.1364086	21	5 17.6	22.1
517231 2014 BK_{61}	17.9	X	57.70155	10.75308	96.84975	4.18573	0.1376373	0.27825620	2.3236613	21	1 25.3	19.9
517232 2014 BG_{66}	17.4	X	314.25554	100.12353	325.35497	7.91553	0.1950492	0.22805112	2.6532688	21	10 26.4	20.1
517233 2014 BJ_{66}	16.6	X	327.84120	256.94297	151.23254	15.10854	0.1448468	0.22822061	2.6519550	21	11 10.6	19.7
517234 2014 CE_{2}	18.2	X	315.04995	332.80849	211.89877	1.11523	0.1227156	0.26439664	2.4041714	21	—	—
517235 2014 CR_{14}	17.3	X	324.94629	125.85241	329.16533	28.33354	0.3439853	0.23984131	2.5655868	21	—	—
517236 2014 CR_{24}	17.7	X	336.29800	298.58978	216.35575	2.06594	0.1255732	0.25779027	2.4450722	21	—	—
517237 2014 CS_{24}	16.5	X	232.74279	40.66469	105.03211	13.34742	0.1052679	0.21996751	2.7178805	21	10 31.4	20.6
517238 2014 CT_{24}	17.2	X	16.13935	282.01760	307.24566	6.69182	0.0758691	0.28278158	2.2988042	21	5 7.6	19.6
517239 2014 DY_{19}	18.1	X	11.04634	15.36886	139.96283	1.72481	0.1306731	0.26799534	2.3826005	21	1 9.0	20.3
517240 2014 DG_{24}	18.2	X	14.44350	43.33134	93.00546	1.59834	0.1644549	0.26934416	2.3746394	21	—	—
517241 2014 DB_{26}	18.0	X	291.94789	175.23773	52.29341	2.93859	0.1469626	0.26107337	2.4245306	21	—	—
517242 2014 DE_{26}	18.1	X	347.94158	40.95574	106.98768	3.41598	0.1461526	0.25916509	2.4364175	21	—	—
517243 2014 DN_{26}	17.7	X	284.73924	169.27512	93.42092	3.62678	0.1784374	0.26840568	2.3801715	21	1 29.7	21.1
517244 2014 DC_{27}	18.4	X	327.94328	195.56509	322.07156	1.61198	0.1243959	0.25768176	2.4457586	21	—	—
517245 2014 DA_{29}	18.4	X	22.46817	323.85128	151.72872	2.84001	0.1529640	0.26772331	2.3842141	21	—	—
517246 2014 DG_{31}	17.9	X	335.47648	355.67870	181.16215	2.19538	0.1450362	0.26348639	2.4097052	21	—	—
517247 2014 DV_{32}	18.2	X	326.53143	168.19390	24.37905	5.76699	0.1668211	0.26445241	2.4038334	21	—	—
517248 2014 DK_{35}	18.1	X	307.77859	105.72782	107.04571	3.43585	0.1620121	0.26264255	2.4148639	21	—	—
517249 2014 DH_{40}	18.2	X	25.39663	325.87045	135.45265	1.72764	0.1523574	0.26706386	2.3881374	21	—	—
517250 2014 DU_{50}	18.1	X	322.82308	55.37826	136.76136	6.49747	0.0919580	0.26117428	2.4239061	21	—	—
517251 2014 DV_{60}	17.6	X	265.81127	174.62334	89.32490	2.60734	0.1449926	0.26069325	2.4268868	21	1 16.3	21.1
517252 2014 DD_{67}	17.6	X	65.83749	13.44846	63.41176	7.49246	0.1010280	0.26051350	2.4280031	21	—	—
517253 2014 DG_{75}	17.2	X	303.16829	143.43167	77.79706	6.85692	0.0850554	0.26073051	2.4266556	21	1 9.9	20.4
517254 2014 DL_{76}	17.8	X	275.28315	122.44870	131.46795	2.18954	0.1597341	0.26033210	2.4291308	21	1 11.7	21.5
517255 2014 DF_{115}	18.5	X	341.90415	1.59819	157.13043	1.65218	0.1299810	0.26059709	2.4274838	21	—	—
517256 2014 DO_{121}	17.3	X	214.72246	174.73072	172.77175	19.70451	0.1275572	0.28310099	2.2970747	21	3 8.8	20.6
517257 2014 DP_{124}	17.9	X	12.19553	324.23176	161.18259	2.59560	0.1474073	0.26076496	2.4264419	21	—	—
517258 2014 DX_{135}	18.0	X	339.95350	81.56915	105.87428	3.37259	0.1392158	0.26618690	2.3933797	21	1 3.6	20.9
517259 2014 DV_{137}	17.8	X	260.84928	192.44649	29.09977	3.54219	0.1639766	0.24597258	2.5227735	21	—	—
517260 2014 DQ_{139}	17.4	X	320.60005	44.66355	160.38360	2.67651	0.1530588	0.26410547	2.4059381	21	—	—
517261 2014 DH_{146}	17.9	X	290.11671	66.63534	157.50759	4.94942	0.1456358	0.25511914	2.4621094	21	—	—
517262 2014 DK_{146}	17.4	X	201.35284	241.24481	27.48109	4.45654	0.0753727	0.23839023	2.5759875	21	—	—
517263 2014 EB_{9}	17.7	X	278.63385	213.77022	32.36318	5.69280	0.1897945	0.26056585	2.4276778	21	1 3.6	21.6
517264 2014 EY_{131}	17.5	X	223.83250	101.87679	176.52245	15.77015	0.0924169	0.25655666	2.4529038	21	—	—
517265 2014 EX_{231}	17.7	X	284.06579	41.93259	212.61384	6.11926	0.0823824	0.27010565	2.3701742	21	1 26.1	20.9
517266 2014 FP_{1}	18.0	X	299.66036	268.76953	306.66761	0.55220	0.1336556	0.25784668	2.4447157	21	—	—
517267 2014 FG_{9}	17.6	X	52.32976	273.67590	168.93553	6.95371	0.1990647	0.27009925	2.3702117	21	—	—
517268 2014 FX_{10}	17.8	X	321.62372	13.03047	175.81168	2.68735	0.1452766	0.25815643	2.4427597	21	—	—
517269 2014 FD_{18}	17.5	X	285.14531	248.62268	337.33787	5.61208	0.0993580	0.25725406	2.4484687	21	—	—
517270 2014 FY_{18}	17.1	X	307.47633	341.45680	260.47607	6.09389	0.0998916	0.27917684	2.3185499	21	2 3.0	20.2
517271 2014 FV_{37}	17.6	X	301.50738	48.83797	81.81250	25.10181	0.0608674	0.36915966	1.9245383	21	—	—
517272 2014 FH_{67}	15.7	X	111.55275	39.25853	141.22790	20.11688	0.1021822	0.17092370	3.2156433	21	7 28.8	20.5
517273 2014 FE_{73}	17.5	X	240.11177	194.24205	59.98230	13.02582	0.1377931	0.24062860	2.5599878	21	—	—
517274 2014 FE_{74}	16.3	X	176.60983	292.14833	214.82657	7.95742	0.0206455	0.19044583	2.9919551	21	8 23.6	20.8
517275 2014 FF_{74}	17.3	X	281.41837	104.97033	41.80001	13.44788	0.1932966	0.22979527	2.6398261	21	12 21.1	20.4
517276 2014 FG_{74}	16.1	X	198.81733	11.04407	121.04580	13.61378	0.0967736	0.19383651	2.9569614	21	9 2.4	20.7
517277 2014 FH_{74}	17.2	X	271.36506	272.73298	224.76460	11.24019	0.2141123	0.22701402	2.6613435	21	11 19.3	20.4
517278 2014 FL_{74}	17.2	X	115.21286	308.19372	58.67441	12.71480	0.0493299	0.23706852	2.5855531	21	—	—
517279 2014 GO_{22}	17.7	X	253.76634	344.87061	255.79950	2.14535	0.1697838	0.24147776	2.5539827	21	—	—
517280 2014 GF_{26}	17.3	X	226.73550	269.25956	354.42617	3.69236	0.1699832	0.23715819	2.5849013	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517281 2014 GJ_{32}	17.7	X	252.46053	117.77968	122.85449	5.98346	0.1038939	0.24032890	2.5621156	21	—	—
517282 2014 GQ_{37}	17.3	X	252.25391	173.97750	106.81247	6.10127	0.1442053	0.25814153	2.4428537	21	1 24.5	21.1
517283 2014 GV_{41}	17.3	X	241.80938	185.40249	18.09325	6.04233	0.1308523	0.22520663	2.6755635	21	—	—
517284 2014 GU_{56}	17.2	X	342.62491	69.28037	56.27108	15.56588	0.0700167	0.23803691	2.5785359	21	—	—
517285 2014 GT_{58}	17.2	X	186.66961	256.91318	2.35866	1.37454	0.0215935	0.22295789	2.6935238	21	—	—
517286 2014 GV_{58}	17.3	X	126.42674	277.74930	78.38305	5.52208	0.0999437	0.23572140	2.5953945	21	—	—
517287 2014 GY_{58}	17.5	X	211.00852	135.55151	159.30625	11.69207	0.1131140	0.23586646	2.5943302	21	1 5.5	21.7
517288 2014 HM	17.4	X	238.39794	216.97025	29.88555	13.92063	0.2241197	0.23629496	2.5911929	21	—	—
517289 2014 HF_{2}	17.4	X	222.49326	205.52908	51.69113	16.41693	0.1143811	0.23053973	2.6341401	21	—	—
517290 2014 HB_{7}	17.3	X	287.47491	129.79938	61.36751	8.57268	0.1000863	0.23993254	2.5649365	21	—	—
517291 2014 HK_{7}	17.6	X	209.98389	137.25244	143.27202	4.90689	0.0988159	0.23839752	2.5759350	21	—	—
517292 2014 HC_{10}	17.8	X	268.01014	161.49010	84.26945	2.76028	0.1107124	0.24922108	2.5008033	21	—	—
517293 2014 HD_{10}	17.5	X	287.65375	348.37402	196.22439	9.45652	0.1371496	0.23844487	2.5755939	21	—	—
517294 2014 HA_{14}	18.1	X	315.14658	328.51388	194.23038	3.39823	0.1602669	0.24301545	2.5431977	21	—	—
517295 2014 HD_{14}	18.1	X	237.74791	230.11168	36.36850	6.00580	0.1665186	0.24287859	2.5441530	21	—	—
517296 2014 HB_{15}	17.9	X	346.50875	285.41269	207.92735	15.59252	0.1473968	0.24571108	2.5245631	21	—	—
517297 2014 HY_{41}	17.8	X	335.82180	246.73832	250.05240	1.50187	0.1535134	0.23870314	2.5737358	21	—	—
517298 2014 HE_{67}	17.0	X	349.86509	252.97104	198.06329	21.59273	0.0587462	0.22687241	2.6624508	21	—	—
517299 2014 HW_{74}	18.0	X	320.68246	96.48826	47.30496	10.06490	0.2261384	0.24140821	2.5544733	21	—	—
517300 2014 HG_{76}	17.9	X	338.22451	310.92736	175.18707	4.67456	0.1736028	0.23988936	2.5652443	21	—	—
517301 2014 HY_{96}	17.9	X	207.47668	128.43088	161.93409	5.07425	0.0849877	0.24111481	2.5565451	21	—	—
517302 2014 HM_{105}	17.8	X	318.67153	71.03228	86.73644	4.66517	0.0741534	0.23864814	2.5741312	21	—	—
517303 2014 HS_{125}	17.3	X	254.91532	106.11809	33.30995	7.92845	0.1674946	0.21397360	2.7684026	21	11 3.1	20.9
517304 2014 HA_{132}	17.4	X	232.29619	125.38982	131.87718	12.30302	0.1452616	0.23260994	2.6184877	21	—	—
517305 2014 HR_{142}	16.1	X	119.60401	326.71086	226.36365	10.30087	0.0620257	0.17348981	3.1838559	21	8 14.7	20.9
517306 2014 HO_{153}	17.8	X	335.95030	292.60382	187.81376	1.99094	0.0868117	0.23340839	2.6125127	21	—	—
517307 2014 HZ_{168}	17.7	X	329.58680	352.02891	199.70312	4.54368	0.1195133	0.26141330	2.4224283	21	—	—
517308 2014 HY_{178}	16.8	X	306.44019	119.09560	61.29242	16.12020	0.0877860	0.24044244	2.5613089	21	—	—
517309 2014 HB_{188}	17.5	X	192.30054	129.37146	154.46529	2.44759	0.1828973	0.23009689	2.6375187	21	—	—
517310 2014 HY_{201}	17.6	X	278.63889	127.92674	51.23151	4.27745	0.1825105	0.22957745	2.6414956	21	—	—
517311 2014 HK_{202}	17.5	X	0.92307	324.26843	142.06293	9.42674	0.1223603	0.23537226	2.5979605	21	—	—
517312 2014 HL_{202}	17.1	X	70.24533	248.22511	174.87853	11.71835	0.0660213	0.23756681	2.5819364	21	—	—
517313 2014 HY_{202}	17.2	X	295.83201	123.45636	69.63335	6.18653	0.0974725	0.23740208	2.5831306	21	—	—
517314 2014 HF_{203}	17.3	X	285.30738	358.94078	192.80003	12.42210	0.0994258	0.23395279	2.6084583	21	—	—
517315 2014 HA_{204}	17.2	X	283.22092	25.12495	131.42207	4.90590	0.0588394	0.22202711	2.7010464	21	—	—
517316 2014 JL_{7}	17.6	X	198.16365	213.81824	83.98833	5.75081	0.1307272	0.23460108	2.6036507	21	—	—
517317 2014 JO_{8}	16.9	X	263.04364	152.87440	71.05032	9.28986	0.1152272	0.23550266	2.5970013	21	—	—
517318 2014 JA_{10}	17.5	X	188.41156	236.95547	74.50181	6.52134	0.1944139	0.23348247	2.6119601	21	1 9.3	21.8
517319 2014 JJ_{12}	17.0	X	218.10099	43.15266	213.98213	13.93919	0.1816956	0.22824303	2.6517813	21	—	—
517320 2014 JL_{13}	17.1	X	114.41639	302.93864	74.56994	11.52547	0.0499522	0.23614330	2.5923022	21	—	—
517321 2014 JT_{13}	17.7	X	202.59839	186.87093	111.69994	5.11163	0.1097000	0.23700935	2.5859834	21	1 1.9	21.6
517322 2014 JV_{15}	17.0	X	236.20060	245.05783	59.56713	15.20397	0.1358268	0.25264497	2.4781577	21	2 14.6	21.2
517323 2014 JR_{16}	17.1	X	198.69702	198.00239	134.04678	9.94668	0.2994936	0.24348079	2.5399563	21	2 12.1	21.8
517324 2014 JK_{17}	17.1	X	191.15953	163.45682	123.88347	12.61422	0.1697865	0.22619552	2.6677598	21	—	—
517325 2014 JW_{18}	17.6	X	187.15029	86.16131	200.54367	7.94779	0.0459956	0.23601570	2.5932365	21	—	—
517326 2014 JJ_{20}	16.0	X	55.66896	94.38044	163.00419	9.67723	0.0314851	0.17527457	3.1622057	21	8 15.7	20.3
517327 2014 JK_{21}	17.2	X	205.50947	173.90096	154.99229	7.80960	0.2768563	0.24037520	2.5617865	21	2 12.0	21.9
517328 2014 JZ_{34}	17.4	X	253.16168	160.00033	90.18789	6.07844	0.2137305	0.23763660	2.5814308	21	—	—
517329 2014 JV_{36}	17.6	X	315.31618	357.25554	174.24215	3.00672	0.0155004	0.23674459	2.5879111	21	—	—
517330 2014 JX_{42}	17.7	X	224.76493	143.43691	139.80304	6.08273	0.2060789	0.23544895	2.5973963	21	1 4.9	22.2
517331 2014 JB_{43}	17.2	X	203.86345	221.25775	72.79469	19.22395	0.2914381	0.22810656	2.6528388	21	1 3.9	22.2
517332 2014 JD_{47}	16.9	X	188.56335	23.14763	243.23657	10.50294	0.0396364	0.22103978	2.7090837	21	—	—
517333 2014 JW_{50}	17.0	X	249.77394	114.65885	125.10998	13.92169	0.1521537	0.23961353	2.5672125	21	—	—
517334 2014 JS_{53}	17.7	X	225.54578	36.92456	221.50009	3.39445	0.1713560	0.23086717	2.6316488	21	—	—
517335 2014 JW_{53}	17.8	X	247.17805	80.13597	148.95327	1.15390	0.1503984	0.23174475	2.6250009	21	—	—
517336 2014 JM_{60}	17.4	X	185.51729	193.53484	104.87176	1.53926	0.1166608	0.23051885	2.6342991	21	—	—
517337 2014 JA_{63}	17.1	X	180.11307	211.62203	94.17893	15.08990	0.1586884	0.23080441	2.6321258	21	—	—
517338 2014 JC_{63}	17.1	X	198.59999	64.79319	169.90315	14.58881	0.0565869	0.21555074	2.7548822	21	—	—
517339 2014 JL_{63}	17.0	X	242.28373	34.06120	212.70215	32.79492	0.1822163	0.23391234	2.6087590	21	—	—
517340 2014 JO_{65}	17.4	X	285.16203	56.22425	157.17989	5.30834	0.1495984	0.24262473	2.5459273	21	—	—
517341 2014 JV_{65}	17.6	X	226.88259	143.61774	125.70878	5.14651	0.1557690	0.23554637	2.5966800	21	—	—
517342 2014 JH_{66}	17.7	X	277.11018	24.96667	204.05553	5.15856	0.1426045	0.24298239	2.5434284	21	—	—
517343 2014 JN_{66}	17.4	X	257.25483	155.45048	103.23704	5.73809	0.1357646	0.24376975	2.5379487	21	1 4.8	21.4
517344 2014 JO_{66}	17.4	X	292.25315	331.46559	193.91554	7.31317	0.1512835	0.22937951	2.6430151	21	—	—
517345 2014 JS_{66}	17.4	X	254.91665	143.75256	83.63885	11.73464	0.0791231	0.23412705	2.6071638	21	—	—
517346 2014 JG_{67}	17.3	X	255.96942	176.37109	63.94649	15.77715	0.0702290	0.23811605	2.5779645	21	—	—
517347 2014 JS_{71}	16.4	X	353.19624	95.92960	47.79565	14.64115	0.0406840	0.24023545	2.5627800	21	—	—
517348 2014 JJ_{72}	17.2	X	204.83171	49.00841	248.64123	3.86302	0.1604178	0.23415343	2.6069680	21	1 4.8	21.5
517349 2014 JQ_{74}	17.3	X	186.86399	243.05409	66.32630	6.88227	0.2905219	0.22736453	2.6586076	21	1 11.0	22.1
517350 2014 JR_{74}	17.4	X	239.54195	135.82457	87.89771	2.72957	0.1322732	0.22729539	2.6591467	21	—	—
517351 2014 JC_{84}	17.3	X	140.76001	221.23363	104.30574	7.08613	0.0456923	0.22105603	2.7089509	21	—	—
517352 2014 JP_{84}	17.3	X	167.23584	209.25302	129.77668	13.26125	0.1167596	0.23258550	2.6186711	21	1 16.5	21.1
517353 2014 JX_{84}	16.9	X	153.77383	193.07518	149.42435	15.04655	0.1864417	0.22462740	2.6801611	21	1 14.7	21.2
517354 2014 JJ_{85}	17.3	X	201.96645	194.69772	100.50788	8.43992	0.0716569	0.23420420	2.6065912	21	—	—
517355 2014 JL_{85}	17.1	X	50.59033	355.33534	67.71484	9.84486	0.0267764	0.22965475	2.6409028	21	—	—
517356 2014 JN_{85}	17.1	X	44.14185	334.76357	101.09337	15.38147	0.0586107	0.23207214	2.6225315	21	—	—
517357 2014 JP_{86}	16.9	X	290.65499	287.01866	203.97883	10.48461	0.1656252	0.21217307	2.7840426	21	12 15.6	20.2
517358 2014 JV_{86}	17.4	X	291.02076	41.50557	120.66288	13.55856	0.2017072	0.22454573	2.6808109	21	—	—
517359 2014 JW_{86}	17.4	X	286.40081	144.38073	52.64939	2.96564	0.1266612	0.23395871	2.6084143	21	—	—
517360 2014 JX_{86}	17.5	X	103.16215	290.24172	86.80790	2.52723	0.0667313	0.23246742	2.6195578	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517361 2014 JY_{86}	17.2	X	204.71627	109.37060	143.19707	5.60320	0.1113967	0.22280307	2.6947714	21	—	—
517362 2014 KC_{4}	17.4	X	224.11736	97.40108	199.65470	27.67462	0.3735387	0.23659136	2.5890283	21	1 14.9	23.0
517363 2014 KX_{4}	17.5	X	252.19882	206.93367	45.52381	3.32086	0.1626878	0.23830757	2.5765831	21	—	—
517364 2014 KA_{16}	17.9	X	218.83795	59.78746	198.62211	3.68197	0.1382857	0.22795995	2.6539761	21	—	—
517365 2014 KO_{19}	18.0	X	254.91537	71.74994	148.08021	2.52964	0.1431483	0.23244102	2.6197562	21	—	—
517366 2014 KZ_{25}	17.3	X	307.78301	1.07010	183.74472	5.28479	0.1057625	0.23917065	2.5703808	21	—	—
517367 2014 KC_{29}	17.2	X	298.49205	346.25172	208.98652	8.40848	0.1026579	0.23837128	2.5761240	21	—	—
517368 2014 KE_{33}	17.7	X	227.37141	216.36436	77.72734	13.18155	0.1760602	0.24272270	2.5452422	21	1 20.5	22.0
517369 2014 KL_{43}	17.0	X	189.38597	209.75442	103.70948	17.03028	0.1591660	0.23237879	2.6202238	21	1 10.5	21.1
517370 2014 KP_{43}	17.2	X	176.63104	177.65373	108.85300	12.32782	0.0609667	0.22269516	2.6956419	21	—	—
517371 2014 KS_{43}	17.6	X	203.96850	114.19232	193.44549	13.15336	0.1654752	0.23587465	2.5942702	21	1 13.8	22.1
517372 2014 KV_{43}	17.0	X	125.79387	161.82200	195.46115	15.53393	0.1073592	0.22555560	2.6728031	21	—	—
517373 2014 KR_{52}	17.1	X	72.03512	252.40282	125.73605	7.36584	0.0458532	0.21665102	2.7455470	21	—	—
517374 2014 KD_{53}	16.7	X	84.37097	256.04282	107.15249	7.43979	0.0419386	0.21473780	2.7618307	21	—	—
517375 2014 KS_{56}	17.0	X	277.92979	329.94166	213.42703	13.57907	0.1962469	0.22856004	2.6493287	21	—	—
517376 2014 KV_{57}	17.2	X	281.53585	71.38862	102.21506	12.39585	0.1307633	0.22367047	2.6878000	21	—	—
517377 2014 KY_{57}	18.1	X	217.02088	130.43573	167.02183	5.29447	0.2966964	0.23229613	2.6208454	21	1 15.6	23.1
517378 2014 KZ_{66}	16.8	X	229.25487	176.73449	82.81590	8.84255	0.1598648	0.23120153	2.6291110	21	—	—
517379 2014 KQ_{74}	17.0	X	110.40855	195.30561	150.94626	6.83753	0.0488905	0.21596437	2.7513635	21	—	—
517380 2014 KK_{78}	17.4	X	224.60972	192.64316	54.12763	3.55593	0.1035208	0.22820919	2.6520434	21	—	—
517381 2014 KM_{79}	17.0	X	115.08268	94.29312	260.11342	5.09287	0.0353390	0.22433755	2.6824691	21	—	—
517382 2014 KB_{86}	17.2	X	247.10443	130.49436	90.86339	16.27906	0.2212791	0.22739525	2.6583681	21	—	—
517383 2014 KZ_{86}	16.6	X	192.12412	244.50776	86.77979	13.66877	0.3109108	0.23723891	2.5843149	21	2 10.7	21.5
517384 2014 KV_{87}	17.4	X	238.19562	70.31730	191.76848	11.05273	0.1621853	0.23780727	2.5801956	21	—	—
517385 2014 KE_{93}	17.9	X	240.94078	46.95863	195.40533	7.70083	0.1733908	0.22920267	2.6443744	21	—	—
517386 2014 KL_{95}	16.6	X	132.69768	214.09824	127.24363	16.84454	0.1711476	0.21730783	2.7400120	21	—	—
517387 2014 KT_{100}	17.2	X	221.48164	167.38613	103.22098	15.28556	0.2298792	0.22970109	2.6405476	21	—	—
517388 2014 KZ_{103}	17.5	X	199.40538	82.55076	186.81396	1.88575	0.0563108	0.22301361	2.6930751	21	—	—
517389 2014 KQ_{104}	16.9	X	151.09210	222.49771	77.52095	9.78102	0.1130700	0.21282457	2.7783580	21	—	—
517390 2014 KR_{104}	17.0	X	57.39024	231.72450	154.97397	8.20915	0.0630585	0.21249829	2.7812013	21	—	—
517391 2014 KT_{104}	17.7	X	152.30210	158.78873	161.01817	6.32397	0.1675680	0.21694685	2.7430506	21	—	—
517392 2014 KU_{104}	17.5	X	181.65171	116.67338	169.53399	5.12052	0.1407704	0.21850543	2.7299911	21	—	—
517393 2014 KA_{105}	17.0	X	138.80206	240.73381	105.13983	11.84492	0.0559242	0.22927225	2.6438393	21	—	—
517394 2014 KD_{105}	17.3	X	278.64318	66.30262	101.12869	11.14125	0.0823141	0.22115081	2.7081769	21	—	—
517395 2014 KG_{105}	15.9	X	164.70522	33.63395	183.19944	29.21123	0.1967417	0.17514107	3.1638124	21	11 5.7	21.5
517396 2014 KR_{105}	16.8	X	171.90637	148.88227	148.92724	8.48671	0.1858742	0.21589062	2.7519901	21	—	—
517397 2014 KJ_{106}	17.6	X	258.23845	84.07176	160.50724	4.36672	0.1283133	0.23640466	2.5903912	21	—	—
517398 2014 KL_{106}	17.3	X	295.31245	26.64326	171.82478	4.06370	0.1235876	0.23545978	2.5973166	21	—	—
517399 2014 LQ	17.0	X	190.62134	240.82226	80.37317	9.78613	0.2022067	0.23265011	2.6181863	21	1 23.9	21.5
517400 2014 LL_{4}	17.9	X	211.73555	108.93017	159.00063	2.58226	0.0352498	0.23000671	2.6382081	21	—	—
517401 2014 LP_{5}	17.5	X	143.63634	124.74910	199.44729	4.51276	0.0310075	0.22371454	2.6874470	21	—	—
517402 2014 LN_{10}	17.0	X	274.60127	306.95212	277.49530	7.10400	0.2234802	0.24193703	2.5507495	21	—	—
517403 2014 LY_{13}	17.4	X	159.72840	128.84568	161.51426	3.53058	0.0645197	0.21668957	2.7452214	21	—	—
517404 2014 LB_{14}	17.2	X	289.14605	83.12628	127.35082	6.04939	0.1691215	0.24122282	2.5557819	21	—	—
517405 2014 LP_{15}	16.8	X	180.93380	174.00646	117.08457	10.15308	0.1377632	0.20852720	2.8163994	21	—	—
517406 2014 LA_{18}	17.6	X	212.72510	156.25338	125.04825	3.31482	0.1544108	0.23076290	2.6324415	21	—	—
517407 2014 LG_{21}	17.0	X	224.55445	210.00494	86.49243	19.16831	0.3400412	0.22980347	2.6397633	21	1 20.9	22.2
517408 2014 LE_{23}	17.0	X	234.07736	327.30721	250.52427	12.50315	0.1939186	0.22213684	2.7001569	21	—	—
517409 2014 LT_{24}	17.5	X	261.94658	55.43508	194.05936	12.70930	0.1510510	0.24050630	2.5608556	21	—	—
517410 2014 LT_{29}	16.6	X	183.38203	16.80555	233.37812	7.28791	0.1392429	0.19732061	2.9220507	21	12 31.4	21.4
517411 2014 LV_{29}	17.2	X	199.15695	97.94424	168.19303	9.24355	0.0947871	0.20509452	2.8477379	21	—	—
517412 2014 LA_{30}	16.9	X	139.25579	298.36457	6.70781	12.76815	0.1822854	0.19875760	2.9079496	21	—	—
517413 2014 LD_{30}	15.9	X	97.51832	62.21548	262.35711	9.02772	0.0709157	0.18394972	3.0619867	21	—	—
517414 2014 MB	16.5	X	175.62613	257.43177	93.56867	30.05540	0.3218907	0.23138015	2.6277577	21	2 28.5	21.8
517415 2014 MR_{1}	16.9	X	185.43928	53.91273	244.79576	12.26670	0.2540233	0.22317102	2.6918086	21	—	—
517416 2014 MD_{3}	17.1	X	215.60856	65.13239	224.45667	12.43311	0.2663536	0.22954267	2.6417624	21	1 4.7	22.1
517417 2014 MP_{3}	17.1	X	187.02928	188.69137	101.44201	13.75941	0.0980120	0.22545197	2.6736221	21	—	—
517418 2014 MB_{10}	16.6	X	172.82281	61.63786	220.67320	11.98968	0.1677247	0.21325453	2.7746223	21	—	—
517419 2014 MP_{10}	16.6	X	177.59462	85.09439	230.03042	8.32690	0.2131167	0.21455129	2.7634311	21	1 6.7	21.3
517420 2014 MF_{21}	17.1	X	180.57031	250.98495	85.64282	12.26933	0.2137426	0.23125733	2.6286880	21	2 4.7	21.6
517421 2014 MA_{22}	17.4	X	170.23897	113.33318	184.58639	3.15891	0.1795424	0.21665641	2.7455015	21	—	—
517422 2014 MR_{28}	17.5	X	200.33741	137.40437	127.56927	11.47430	0.2068872	0.22010421	2.7167551	21	—	—
517423 2014 MN_{47}	17.7	X	192.01635	145.29304	160.81488	4.51016	0.2251905	0.22687094	2.6624623	21	1 7.4	22.2
517424 2014 ME_{53}	17.4	X	216.89001	80.76625	205.98035	9.89905	0.2841139	0.22364924	2.6879701	21	1 3.8	22.5
517425 2014 MZ_{56}	16.2	X	287.69272	343.20034	113.19082	19.47526	0.0798715	0.17022528	3.2244329	21	11 7.2	20.9
517426 2014 MM_{67}	16.4	X	230.81107	12.09758	303.79728	32.72332	0.1793783	0.22898995	2.6460118	21	2 9.2	21.0
517427 2014 MR_{72}	15.5	X	15.59483	275.74135	54.48446	14.96044	0.1813624	0.15397994	3.4474128	21	10 12.6	19.7
517428 2014 MB_{73}	16.6	X	142.87575	205.81460	60.67553	8.39009	0.1366093	0.18210484	3.0826322	21	12 12.1	21.5
517429 2014 NQ	17.8	X	239.57704	81.78363	199.81299	4.55936	0.2980031	0.23720756	2.5845426	21	1 11.5	22.6
517430 2014 NZ_{21}	16.0	X	46.46612	105.73547	235.73843	14.46703	0.0657044	0.17083184	3.2167958	21	11 21.5	20.5
517431 2014 NT_{24}	16.2	X	199.25825	326.88435	265.03866	9.44113	0.0852356	0.19647287	2.9304501	21	12 30.2	20.6
517432 2014 NT_{40}	17.3	X	209.82566	101.96594	202.71971	12.44376	0.1530790	0.22245611	2.6975727	21	1 16.8	21.9
517433 2014 NY_{54}	16.6	X	99.01958	260.95564	79.02183	9.67548	0.1072798	0.18767248	3.0213589	21	—	—
517434 2014 NF_{68}	17.3	X	209.59161	66.22628	190.63957	4.34447	0.0673242	0.20861157	2.8156399	21	—	—
517435 2014 OJ_{70}	16.6	X	213.63314	280.72108	302.30083	5.86159	0.1057896	0.19252148	2.9704113	21	—	—
517436 2014 OS_{73}	17.0	X	177.57572	215.01660	124.42707	13.78353	0.3006687	0.22907482	2.6453582	21	2 8.3	21.7
517437 2014 OQ_{100}	16.2	X	136.08756	307.55855	334.49815	11.62598	0.1738733	0.18166168	3.0876436	21	12 25.9	21.5
517438 2014 OU_{100}	16.8	X	186.52264	141.07043	146.81563	15.64656	0.1351649	0.20225703	2.8743102	21	—	—
517439 2014 OT_{106}	16.4	X	78.69744	17.11540	309.81013	9.76034	0.1005417	0.17860037	3.1228261	21	12 17.9	21.1
517440 2014 OP_{111}	17.0	X	196.78836	230.56197	71.84595	6.33085	0.1532779	0.21793256	2.7347731	21	1 6.4	21.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517441 2014 OM_{127}	16.3	X	298.09930	47.51645	52.53020	5.77168	0.1203013	0.17359230	3.1826026	21	11 13.8	20.2
517442 2014 OQ_{130}	17.2	X	268.90069	94.33386	126.70613	12.49569	0.2413769	0.22426216	2.6830703	21	—	—
517443 2014 OO_{131}	17.4	X	275.53761	65.48032	186.49211	11.95444	0.2715817	0.24476791	2.5310442	21	1 2.7	22.0
517444 2014 OT_{141}	17.1	X	205.72629	121.10969	83.81804	2.90216	0.0405537	0.18489535	3.0515375	21	12 8.1	21.5
517445 2014 OH_{150}	16.1	X	287.68385	339.09645	126.63616	18.03647	0.1674033	0.17243734	3.1967979	21	11 6.4	20.5
517446 2014 OO_{151}	17.2	X	206.76636	231.04241	37.01422	4.61243	0.1735238	0.21449495	2.7639149	21	—	—
517447 2014 OK_{168}	16.3	X	48.53530	0.49577	358.36138	9.96963	0.0461566	0.18081990	3.0972189	21	12 13.1	20.8
517448 2014 OE_{205}	16.7	X	116.25831	315.39025	352.04858	9.04829	0.0742770	0.18441511	3.0568331	21	—	—
517449 2014 OH_{205}	17.0	X	199.67486	192.51957	85.05606	8.57671	0.1706656	0.20999636	2.8032481	21	—	—
517450 2014 OB_{219}	16.4	X	66.96700	242.19968	97.22707	11.49937	0.0968639	0.17990861	3.1076689	21	12 19.6	20.9
517451 2014 OK_{228}	16.5	X	123.88005	352.13547	305.26634	6.13363	0.2721938	0.17986139	3.1082129	21	—	—
517452 2014 OE_{260}	16.3	X	83.20096	229.22331	80.28397	10.67704	0.0505921	0.17447858	3.1718158	21	11 26.5	20.8
517453 2014 OA_{270}	16.2	X	108.17156	205.66488	70.31141	12.23709	0.0695226	0.17054222	3.2204368	21	11 16.5	21.0
517454 2014 OU_{336}	16.5	X	104.45185	324.69311	7.32411	10.50770	0.0741628	0.18801646	3.0176727	21	—	—
517455 2014 OJ_{342}	17.1	X	131.54604	267.53222	46.19063	3.89906	0.1014327	0.19326071	2.9628318	21	—	—
517456 2014 OB_{346}	16.9	X	128.88978	146.87768	157.27682	10.09721	0.0566770	0.19353554	2.9600263	21	—	—
517457 2014 OY_{346}	16.4	X	77.10303	186.07769	143.56231	12.69260	0.1159233	0.18016622	3.1047059	21	12 22.0	21.1
517458 2014 OO_{354}	16.9	X	113.45582	94.56140	244.68388	6.02506	0.0696253	0.19812985	2.9140888	21	—	—
517459 2014 OV_{358}	16.7	X	198.37494	55.53169	167.72122	13.28256	0.0827348	0.18043224	3.1016536	21	12 17.6	21.6
517460 2014 OC_{369}	16.7	X	170.92439	314.43463	300.51851	4.41747	0.1171929	0.19204877	2.9752836	21	12 26.5	21.3
517461 2014 OZ_{386}	17.4	X	205.25797	116.05423	152.68401	10.61972	0.1584723	0.21119242	2.7926542	21	—	—
517462 2014 OK_{389}	16.1	X	74.19101	275.54289	77.04177	3.73284	0.2603016	0.17195316	3.2027959	21	—	—
517463 2014 OU_{399}	16.8	X	222.56456	92.95631	104.49442	3.34193	0.0372039	0.17912743	3.1166975	21	12 17.8	21.2
517464 2014 OQ_{402}	16.6	X	132.70051	309.43718	4.95773	7.90812	0.0516116	0.18983406	2.9983797	21	—	—
517465 2014 OQ_{403}	16.6	X	171.83364	238.51077	356.87474	8.75676	0.1158779	0.17973066	3.1097198	21	12 1.1	21.7
517466 2014 PH_{13}	16.8	X	120.02628	356.23170	303.41668	5.63393	0.1140811	0.18267116	3.0762578	21	12 29.5	21.7
517467 2014 PY_{17}	16.0	X	113.87838	323.07984	337.26555	9.39474	0.1109340	0.18027674	3.1034369	21	12 24.2	20.9
517468 2014 PG_{26}	16.3	X	174.92908	111.88399	133.77823	16.68829	0.1106104	0.18425271	3.0586290	21	12 20.0	21.3
517469 2014 PB_{29}	17.1	X	187.92386	162.85068	144.07485	7.97025	0.2758201	0.21257352	2.7805451	21	1 9.2	22.1
517470 2014 PR_{30}	16.7	X	86.62292	183.22794	142.52077	7.16791	0.1593689	0.17526217	3.1623548	21	12 29.9	21.7
517471 2014 PW_{39}	16.6	X	88.47295	171.02570	150.16360	10.41990	0.0766652	0.17335071	3.1855589	21	12 18.6	21.4
517472 2014 PO_{52}	16.6	X	124.02343	353.21538	284.82616	3.17892	0.1389198	0.17408062	3.1766481	21	12 7.9	21.7
517473 2014 PD_{72}	17.2	X	143.95942	241.63431	71.40487	2.92747	0.0870214	0.19506954	2.9444877	21	—	—
517474 2014 PV_{72}	16.9	X	137.12998	288.96951	2.06514	5.17736	0.1236021	0.18185464	3.0854591	21	—	—
517475 2014 PH_{73}	16.1	X	101.49221	209.97058	125.68344	12.30480	0.1693234	0.17659801	3.1463873	21	—	—
517476 2014 QQ_{27}	16.3	X	126.41341	307.62200	331.93503	7.50651	0.1358740	0.17268194	3.1937783	21	12 11.1	21.5
517477 2014 QS_{29}	17.2	X	130.04203	141.01067	179.01673	15.63738	0.2097754	0.18901389	3.0070472	21	—	—
517478 2014 QM_{52}	18.1	X	243.95859	105.92510	156.52486	4.63684	0.3168563	0.22879694	2.6474997	21	—	—
517479 2014 QM_{90}	16.6	X	108.76439	134.00749	182.79595	8.99274	0.1341690	0.18361964	3.0656551	21	—	—
517480 2014 QE_{118}	16.3	X	55.63522	205.15097	163.81899	12.13593	0.0779637	0.17614981	3.1517222	21	—	—
517481 2014 QW_{138}	17.3	X	162.33067	105.75033	161.87406	5.73376	0.1733376	0.18356329	3.0662825	21	12 29.9	22.5
517482 2014 QY_{145}	16.8	X	190.94243	65.19360	164.90598	8.60246	0.0564959	0.17774592	3.1328261	21	12 19.1	21.6
517483 2014 QJ_{153}	16.4	X	74.69199	262.94839	62.26708	12.05874	0.0895638	0.17930140	3.1146811	21	12 9.4	21.0
517484 2014 QM_{165}	17.2	X	213.35046	169.98898	112.12311	14.99248	0.1845655	0.21864078	2.7288643	21	—	—
517485 2014 QJ_{166}	15.7	X	96.18921	136.30177	163.57252	28.13745	0.2314432	0.17265767	3.1940776	21	12 17.3	21.4
517486 2014 QE_{175}	16.9	X	110.56450	195.27375	107.32832	3.41452	0.1339420	0.17515368	3.1636605	21	12 23.8	21.8
517487 2014 QG_{176}	17.2	X	170.26983	111.36031	166.94795	2.08305	0.1253195	0.18944432	3.0024906	21	—	—
517488 2014 QE_{225}	16.2	X	75.91093	165.56402	167.41472	16.12972	0.2270220	0.17322134	3.1871447	21	—	—
517489 2014 QQ_{225}	16.7	X	113.05471	130.92403	182.30582	6.67988	0.0996087	0.17956512	3.1116308	21	—	—
517490 2014 QC_{227}	16.5	X	229.33978	71.06387	156.97847	15.38953	0.2157947	0.19993425	2.8965293	21	—	—
517491 2014 QY_{242}	16.3	X	68.86419	316.01796	38.19589	9.54584	0.0429260	0.17397340	3.1779531	21	12 31.1	21.0
517492 2014 QC_{243}	16.8	X	94.58488	315.81403	30.77817	9.08672	0.1463335	0.18150113	3.0894642	21	—	—
517493 2014 QE_{245}	16.2	X	105.52019	275.42825	21.61772	14.68399	0.1559190	0.17116938	3.2125656	21	12 11.7	21.5
517494 2014 QW_{252}	16.6	X	109.84708	279.61388	35.12029	10.52807	0.0865508	0.17487328	3.1670414	21	—	—
517495 2014 QB_{288}	17.2	X	224.12028	215.08401	83.75779	16.02615	0.2156013	0.22252643	2.6970043	21	1 26.1	22.0
517496 2014 QB_{289}	16.4	X	39.03963	320.62403	61.37412	12.41254	0.0119712	0.17774035	3.1328915	21	12 24.4	20.8
517497 2014 QN_{292}	16.5	X	194.22566	206.01413	46.55517	13.67044	0.1443772	0.19006612	2.9959386	21	—	—
517498 2014 QL_{299}	16.3	X	192.17364	250.14363	339.50899	8.34521	0.0935063	0.18508012	3.0495063	21	12 17.7	21.1
517499 2014 QG_{304}	16.7	X	149.64269	110.16960	156.58902	23.10605	0.1301594	0.17831202	3.1261919	21	12 20.4	22.1
517500 2014 QU_{307}	16.6	X	103.08703	257.29393	69.39091	1.90434	0.1635777	0.17564846	3.1577166	21	—	—
517501 2014 QG_{324}	16.1	X	158.24472	264.32399	12.63572	15.79964	0.2073298	0.18200413	3.0837693	21	—	—
517502 2014 QH_{326}	16.3	X	115.95045	148.71286	177.38021	20.03875	0.1493427	0.17808984	3.1287915	21	—	—
517503 2014 QD_{335}	16.8	X	20.00067	5.38265	103.26231	7.09492	0.0953365	0.18744404	3.0238132	21	—	—
517504 2014 QS_{343}	16.2	X	198.79585	114.20354	156.03704	15.37597	0.1308605	0.20583169	2.8409345	21	—	—
517505 2014 QA_{369}	16.5	X	166.33568	255.29151	16.83805	10.97255	0.1763317	0.18575097	3.0421596	21	—	—
517506 2014 QY_{375}	16.4	X	96.91707	139.10695	187.69097	9.50017	0.0727062	0.17301399	3.1896907	21	—	—
517507 2014 QW_{400}	16.6	X	169.70814	78.95344	154.53094	16.81238	0.0792045	0.17217273	3.2000724	21	12 1.8	21.8
517508 2014 QC_{430}	16.8	X	152.28685	334.81329	302.28083	2.61843	0.2173764	0.18566954	3.0430490	21	—	—
517509 2014 QJ_{447}	16.3	X	103.87184	235.20824	98.82935	6.13725	0.1361232	0.17900577	3.1181095	21	—	—
517510 2014 QT_{447}	15.9	X	102.48138	235.21856	119.68107	17.61855	0.2159378	0.17885302	3.1198846	21	—	—
517511 2014 QX_{449}	16.0	X	155.22266	164.10800	135.50493	10.96606	0.0798581	0.18037294	3.1023333	21	—	—
517512 2014 QW_{450}	16.6	X	194.91286	170.75499	49.39270	7.43702	0.1465592	0.17468496	3.1693172	21	12 3.5	21.6
517513 2014 QD_{451}	16.9	X	138.26832	276.44714	21.59865	7.89261	0.1438586	0.18065777	3.0990716	21	—	—
517514 2014 QK_{451}	16.5	X	166.86924	5.85696	239.75247	3.94711	0.1294360	0.17579508	3.1559606	21	12 9.2	21.6
517515 2014 QN_{451}	15.8	X	112.48716	216.37842	121.51625	25.79538	0.1903894	0.17956325	3.1116524	21	—	—
517516 2014 QB_{452}	16.7	X	155.65508	134.84402	163.42621	8.88176	0.1844173	0.18628017	3.0363952	21	—	—
517517 2014 QO_{452}	17.0	X	192.96833	248.18188	15.89590	4.62436	0.0950817	0.19353777	2.9600035	21	—	—
517518 2014 QP_{452}	16.3	X	132.18046	271.51813	88.66101	9.97733	0.1157176	0.19746756	2.9206009	21	1 11.2	20.5
517519 2014 QQ_{452}	16.4	X	325.53603	253.09763	152.59001	5.81005	0.0338713	0.15447674	3.4400175	21	10 21.9	21.2
517520 2014 QV_{452}	16.8	X	40.90580	263.43993	175.91924	16.91241	0.3061390	0.17368233	3.1815027	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517521 2014 QY_{452}	16.4	X	304.59075	71.05458	90.02670	10.71117	0.0590739	0.17055526	3.2202726	21	—	—
517522 2014 QZ_{452}	16.8	X	46.47375	307.15555	113.27047	2.31149	0.1486007	0.17334390	3.1856423	21	—	—
517523 2014 QW_{454}	16.5	X	115.71543	114.28553	193.34822	11.06291	0.0665410	0.17504833	3.1649297	21	12 29.4	21.5
517524 2014 QB_{456}	15.9	X	125.77148	269.40589	25.27374	11.86481	0.0690068	0.17200244	3.2021841	21	12 24.9	20.9
517525 2014 RQ_{6}	18.3	X	36.17203	311.44602	18.53113	6.23141	0.1486808	0.29064145	2.2571704	21	11 26.6	20.9
517526 2014 RU_{6}	17.5	X	214.28752	10.86947	14.13964	11.37543	0.1454373	0.23364267	2.6107660	21	4 27.0	21.6
517527 2014 RB_{22}	16.5	X	109.33548	305.50938	21.48289	10.60767	0.1337441	0.18040606	3.1019536	21	—	—
517528 2014 RZ_{41}	16.3	X	144.28914	293.99334	346.49430	9.40471	0.1657477	0.17843911	3.1247074	21	12 30.3	21.6
517529 2014 RF_{44}	16.2	X	99.08669	72.55897	259.75345	6.52214	0.2433360	0.17538414	3.1608885	21	—	—
517530 2014 RJ_{60}	16.4	X	131.05961	286.61828	20.74350	7.24884	0.1576619	0.17527354	3.1622180	21	—	—
517531 2014 RL_{65}	16.1	X	119.07247	155.32899	162.93994	9.39319	0.0627065	0.18002869	3.1062869	21	—	—
517532 2014 SW	16.3	X	190.01464	255.65526	60.63014	30.95970	0.4051844	0.21157554	2.7892819	21	1 30.6	22.2
517533 2014 SF_{59}	16.6	X	143.27054	233.44867	36.84930	10.44032	0.0748638	0.17249456	3.1960908	21	12 13.8	21.5
517534 2014 SY_{98}	16.3	X	155.38048	83.46240	184.94549	10.71104	0.0537048	0.17209883	3.2009885	21	12 24.6	21.2
517535 2014 SP_{133}	16.0	X	112.48713	303.97211	36.42522	17.16978	0.2155205	0.18160984	3.0882311	21	—	—
517536 2014 SZ_{142}	17.0	X	235.75892	122.96329	207.00905	33.90302	0.2780767	0.23028801	2.6360593	21	3 2.6	22.2
517537 2014 SU_{154}	18.0	X	210.75961	137.83211	221.59428	3.41762	0.2497259	0.22793671	2.6541566	21	3 23.8	22.7
517538 2014 SF_{156}	16.7	X	120.34459	301.93421	14.73330	0.82530	0.1708242	0.17632967	3.1495786	21	—	—
517539 2014 SV_{215}	17.2	X	10.41632	192.73056	120.47992	5.54035	0.1985233	0.26571466	2.3962146	21	9 26.1	19.2
517540 2014 SX_{215}	16.7	X	165.55084	246.24912	120.55783	6.94822	0.0925960	0.19710771	2.9241544	21	2 22.5	21.1
517541 2014 SP_{216}	17.8	X	46.10093	259.36101	94.73883	7.66909	0.1373665	0.29361972	2.2418811	21	—	—
517542 2014 SY_{223}	18.8	X	53.37276	100.54562	194.16739	16.50979	0.2059334	0.43524308	1.7244402	21	12 5.6	21.1
517543 2014 SW_{280}	16.9	X	234.88978	270.43203	37.49601	11.80788	0.1367197	0.21622803	2.7491265	21	2 21.4	21.4
517544 2014 SG_{285}	16.0	X	60.31065	169.41281	199.50383	28.38365	0.1746607	0.17086111	3.2164285	21	—	—
517545 2014 SL_{290}	16.6	X	140.84512	107.14958	184.35225	20.45275	0.1724863	0.18435070	3.0575449	21	—	—
517546 2014 SO_{299}	15.8	X	86.82702	140.97842	226.90989	11.40585	0.1372602	0.17447258	3.1718886	21	—	—
517547 2014 SY_{304}	15.7	X	136.76747	81.12049	203.64215	25.23631	0.1960104	0.17370670	3.1812051	21	12 25.2	21.5
517548 2014 SM_{312}	16.2	X	155.50100	137.44483	173.22917	7.44161	0.1376474	0.18665072	3.0323753	21	—	—
517549 2014 SK_{330}	17.9	X	293.71281	73.84836	297.76571	2.35690	0.2311725	0.26152815	2.4217190	21	6 29.1	20.6
517550 2014 SV_{330}	15.8	X	161.34613	264.84412	21.93884	15.76231	0.2235688	0.17872940	3.1213230	21	—	—
517551 2014 SB_{351}	18.2	X	201.85194	234.58365	219.53778	19.94709	0.0740174	0.39132303	1.8511677	21	7 14.8	20.9
517552 2014 SE_{353}	16.1	X	76.40567	240.94003	104.18872	6.89477	0.0782703	0.16918257	3.2376680	21	—	—
517553 2014 SD_{354}	16.4	X	153.46746	128.46535	159.11856	10.30996	0.1999604	0.17694837	3.1422326	21	—	—
517554 2014 SC_{355}	16.8	X	111.38681	97.60398	321.84826	14.33241	0.2197334	0.18635172	3.0356180	21	3 10.2	21.4
517555 2014 SD_{355}	16.6	X	5.68979	186.05602	261.87379	4.45661	0.1428451	0.17041944	3.2219834	21	—	—
517556 2014 TL_{6}	16.4	X	104.90560	134.82981	201.62537	9.14475	0.2277045	0.17400296	3.1775932	21	—	—
517557 2014 TV_{6}	16.5	X	65.61964	250.29182	151.56702	2.51936	0.0875526	0.17761772	3.1343333	21	—	—
517558 2014 TE_{8}	17.9	X	215.13096	249.63734	162.65660	3.43130	0.2058961	0.23985109	2.5655171	21	6 1.8	22.2
517559 2014 TB_{9}	15.7	X	187.98541	273.84587	21.04815	9.10934	0.0744983	0.18839060	3.0136760	21	—	—
517560 2014 TH_{38}	16.6	X	121.36683	142.74181	197.29675	9.39361	0.1261785	0.18353446	3.0666035	21	—	—
517561 2014 TY_{45}	18.8	X	179.57774	251.12389	209.31634	23.49373	0.1750243	0.38757809	1.8630731	21	6 26.9	22.0
517562 2014 TQ_{47}	16.3	X	130.33253	284.13795	28.84655	24.57356	0.2578210	0.17818642	3.1276608	21	—	—
517563 2014 TP_{54}	17.1	X	262.90490	221.83581	127.33732	5.10017	0.1319795	0.23521834	2.5990936	21	5 7.2	20.8
517564 2014 TL_{57}	17.8	X	347.61504	217.39670	146.34934	4.76825	0.1697216	0.27630355	2.3345960	21	10 25.0	19.6
517565 2014 TX_{58}	18.4	X	317.34828	86.56680	344.21911	3.10656	0.1999415	0.28616560	2.2806454	21	12 3.8	19.7
517566 2014 TY_{66}	17.2	X	85.54757	53.80580	344.33059	0.14777	0.1761537	0.18155770	3.0888224	21	1 10.5	21.0
517567 2014 TX_{81}	15.9	X	108.45712	285.02968	29.54111	11.04403	0.1876626	0.17186569	3.2038826	21	—	—
517568 2014 TH_{89}	16.9	X	88.19636	43.64634	349.32541	1.42901	0.0919878	0.18080707	3.0973654	21	—	—
517569 2014 UN_{1}	16.7	X	108.81768	243.78267	212.70142	14.50610	0.1221307	0.20617439	2.8377856	21	4 10.7	20.7
517570 2014 UV_{24}	16.8	X	69.97883	350.36246	79.19323	10.25039	0.1111622	0.18198496	3.0839859	21	1 19.3	20.7
517571 2014 UF_{35}	17.9	X	278.29869	176.85375	241.76960	1.76524	0.1964336	0.26941581	2.3742184	21	8 18.9	20.6
517572 2014 US_{50}	16.3	X	8.98011	242.38940	253.43369	7.07168	0.0478503	0.18013917	3.1050167	21	1 10.4	20.5
517573 2014 UO_{68}	17.6	X	325.88406	87.28539	253.99585	0.46874	0.1514353	0.26429514	2.4047869	21	7 25.7	19.5
517574 2014 UW_{85}	14.3	X	172.50312	52.35936	39.69741	1.60821	0.0738255	0.08293964	5.2074842	21	6 15.3	21.4
517575 2014 UW_{92}	17.0	X	174.92349	35.13291	359.12628	6.50858	0.3220447	0.21779953	2.7358866	21	4 10.1	22.1
517576 2014 UK_{96}	17.8	X	311.10079	204.69933	138.99336	2.10383	0.1985329	0.25893438	2.4378645	21	6 22.3	20.3
517577 2014 UW_{117}	17.4	X	247.94528	260.01467	84.76168	5.89283	0.2860362	0.23843646	2.5756545	21	4 4.6	21.9
517578 2014 UW_{134}	17.2	X	252.91717	71.69530	265.97180	2.78045	0.2985622	0.23534374	2.5981703	21	3 26.0	21.9
517579 2014 UF_{160}	18.2	X	62.97591	92.67246	36.40529	22.08207	0.0509484	0.35420563	1.9783315	21	2 27.8	20.7
517580 2014 UZ_{170}	18.5	X	304.57109	269.76410	200.32927	6.00719	0.1012135	0.29294042	2.2453455	21	—	—
517581 2014 UY_{230}	16.6	X	181.51173	87.11365	206.31083	10.12733	0.0798970	0.18152689	3.0891719	21	—	—
517582 2014 VE_{5}	16.3	X	104.27308	271.01664	50.35897	9.63189	0.1542161	0.17463044	3.1699768	21	—	—
517583 2014 VN_{22}	18.2	X	303.09768	319.45673	79.86522	5.35638	0.1034922	0.26632054	2.3925790	21	9 20.7	20.8
517584 2014 WH_{26}	18.4	X	285.47965	248.63549	199.98931	2.10819	0.1372240	0.27713705	2.3299127	21	10 27.3	20.6
517585 2014 WS_{43}	17.3	X	271.15648	159.17311	177.54348	2.62808	0.1609201	0.23687339	2.5869728	21	4 25.3	21.1
517586 2014 WF_{62}	17.1	X	282.97081	262.35353	43.24156	14.79886	0.0244456	0.22725291	2.6594781	21	4 20.7	20.6
517587 2014 WD_{71}	17.8	X	315.50047	200.90635	157.27392	5.09193	0.1901669	0.26277612	2.4140455	21	7 24.6	20.2
517588 2014 WA_{83}	17.6	X	134.73579	134.13757	71.15291	7.29297	0.0488646	0.26615836	2.3935508	21	10 1.9	20.9
517589 2014 WK_{93}	17.9	X	232.76787	343.28412	200.05423	4.99050	0.1150114	0.29235123	2.2483613	21	12 25.4	20.5
517590 2014 WE_{96}	16.8	X	106.10539	178.75339	207.17728	11.22827	0.0864113	0.18267259	3.0762418	21	1 8.0	21.2
517591 2014 WL_{118}	17.9	X	35.19714	26.08791	52.26686	4.77223	0.0248868	0.30975912	2.1633161	21	—	—
517592 2014 WT_{118}	13.6	X	310.22477	253.17685	57.95748	28.35563	0.0745204	0.08164873	5.2622290	21	5 30.2	20.4
517593 2014 WC_{123}	17.3	X	194.31128	12.34645	16.78931	6.37525	0.0514011	0.21694975	2.7430262	21	4 15.9	21.4
517594 2014 WX_{199}	14.4	X	335.69070	311.61606	30.21400	17.16994	0.1083802	0.09619913	4.7172471	21	8 16.2	20.6
517595 2014 WF_{232}	14.0	X	231.07814	316.35118	71.88902	8.90563	0.0690316	0.08371225	5.1753935	21	6 1.6	21.1
517596 2014 WJ_{276}	16.5	X	48.64650	320.01473	132.47251	8.28691	0.1391273	0.17707225	3.1407669	21	1 17.3	20.1
517597 2014 WB_{356}	18.3	X	212.64648	325.99062	126.69737	24.10072	0.0466700	0.38420646	1.8739570	21	8 7.4	19.9
517598 2014 WA_{360}	16.4	X	117.51218	284.70876	181.30964	21.54559	0.1069600	0.22054816	2.7131080	21	5 4.2	20.5
517599 2014 WY_{364}	18.3	X	165.57662	345.99318	99.84150	22.75661	0.0532789	0.37399871	1.9079016	21	5 25.5	20.8
517600 2014 WU_{366}	18.0	X	56.34962	281.06424	277.88214	18.98849	0.0784327	0.37791723	1.8946904	21	5 29.1	19.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517601 2014 WP_{369}	18.3	X	184.71637	240.24842	218.24349	21.68648	0.0676735	0.38571570	1.8690654	21	6 29.7	20.9
517602 2014 WS_{373}	17.9	X	253.95545	105.97276	4.14469	4.79022	0.1089696	0.27025755	2.3692860	21	10 10.9	20.8
517603 2014 WT_{421}	17.5	X	188.26087	263.87756	204.52499	5.49135	0.1922552	0.22856770	2.6492695	21	7 17.8	22.0
517604 2014 WL_{467}	15.8	X	161.40983	81.20136	314.00606	12.17798	0.0321989	0.17705849	3.1409296	21	3 15.3	20.6
517605 2014 WQ_{469}	16.6	X	217.69155	295.10657	166.58769	13.33937	0.1172121	0.22882744	2.6472644	21	8 10.3	20.7
517606 2014 WV_{478}	16.2	X	144.93380	237.10150	167.92501	9.66931	0.1174242	0.18292126	3.0734531	21	3 22.3	20.8
517607 2014 WZ_{479}	17.3	X	342.43432	243.31688	150.88537	8.74591	0.0542509	0.25749159	2.4469627	21	11 18.2	20.3
517608 2014 WY_{494}	16.1	X	105.15388	207.21868	249.01026	8.61117	0.0493193	0.18197848	3.0840591	21	3 26.5	20.7
517609 2014 WF_{504}	15.9	X	134.67788	188.87312	138.07216	13.89815	0.2575805	0.18097639	3.0954332	21	—	—
517610 2014 WU_{518}	15.9	X	194.56592	236.23294	63.20704	13.00710	0.1318049	0.18218981	3.0816738	21	1 5.9	21.0
517611 2014 WG_{519}	16.3	X	194.85553	295.54194	45.40642	11.19955	0.0892110	0.18355098	3.0664195	21	2 27.0	21.2
517612 2014 WH_{519}	16.3	X	139.32743	352.00658	55.22426	11.17910	0.1511469	0.19013071	2.9952601	21	3 26.1	21.0
517613 2014 WJ_{519}	16.5	X	145.19605	352.62606	50.85509	9.50472	0.0893975	0.18484029	3.0521436	21	3 21.4	21.1
517614 2014 WP_{519}	17.3	X	173.47054	327.62905	153.42948	13.58979	0.0796689	0.22648807	2.6654620	21	7 20.5	21.4
517615 2014 WR_{519}	16.5	X	359.41999	136.76463	5.59849	9.95504	0.0842912	0.17450082	3.1715464	21	1 6.6	20.8
517616 2014 WZ_{519}	15.9	X	312.79434	329.35370	260.16028	13.60171	0.0899589	0.17080879	3.2170853	21	2 11.5	20.6
517617 2014 WB_{520}	16.5	X	54.78540	224.91524	286.96977	8.86989	0.0932575	0.18601322	3.0392996	21	4 2.4	20.6
517618 2014 XF	17.3	X	183.41050	152.44305	268.67130	20.41101	0.1093160	0.37206271	1.9145143	21	5 2.4	20.1
517619 2014 XP_{12}	14.2	X	205.72273	354.44573	72.46561	16.44520	0.0798326	0.08407562	5.1604708	21	6 18.4	21.4
517620 2014 XD_{41}	18.1	X	131.30197	98.88994	61.11268	23.80886	0.0592093	0.37758337	1.8958071	21	8 2.9	20.8
517621 2014 YU_{1}	16.9	X	136.39063	132.74806	351.91008	8.88057	0.1443681	0.21660966	2.7458965	21	6 19.8	21.3
517622 2014 YW_{7}	17.9	X	35.00200	112.63851	309.64192	7.67735	0.1300466	0.30133468	2.2034505	21	—	—
517623 2014 YR_{10}	16.7	X	167.11952	217.56366	255.15382	7.45662	0.1317521	0.22324396	2.6912223	21	7 4.1	21.0
517624 2014 YE_{16}	17.7	X	298.66319	323.91103	120.00204	6.66477	0.0948366	0.26685122	2.3894058	21	11 17.7	20.3
517625 2014 YJ_{49}	18.2	X	171.80888	359.86767	123.92802	24.15773	0.0748020	0.38087574	1.8848661	21	7 27.1	19.9
517626 2014 YK_{49}	16.9	X	150.89936	252.76752	281.09585	11.38181	0.1600511	0.23467890	2.6030750	21	8 31.3	21.3
517627 2014 YN_{50}	18.3	X	254.29535	84.96402	246.95838	18.21382	0.0494690	0.34657061	2.0072812	21	3 21.1	21.1
517628 2014 YY_{50}	17.8	X	169.61965	61.88952	32.85054	20.93149	0.1035845	0.36141181	1.9519461	21	6 3.9	20.6
517629 2014 YD_{51}	18.6	X	76.52270	127.59625	65.63963	22.77655	0.0900621	0.36681059	1.9327461	21	6 27.3	20.6
517630 2014 YX_{55}	17.0	X	308.95648	356.53579	318.29238	8.37275	0.1057239	0.21389850	2.7690506	21	5 23.1	20.7
517631 2014 YY_{55}	17.4	X	145.92749	340.52868	113.76931	3.22493	0.0285927	0.20336532	2.8638578	21	5 13.4	21.5
517632 2014 YA_{56}	16.7	X	76.09299	185.80218	64.71744	16.28591	0.0718749	0.21923052	2.7239683	21	9 22.9	20.8
517633 2014 YD_{56}	16.7	X	173.60999	19.94659	5.66893	11.43878	0.0467198	0.18972168	2.9995636	21	3 22.8	21.1
517634 2014 YG_{56}	16.7	X	16.47697	316.62327	11.65947	15.16987	0.1261207	0.22922390	2.6442111	21	10 9.8	19.7
517635 2015 AB_{3}	18.3	X	311.87007	178.43462	170.43353	23.11786	0.0755834	0.38390024	1.8749533	21	7 22.9	20.4
517636 2015 AB_{20}	16.7	X	197.79801	353.55901	106.20271	15.78076	0.0711274	0.24224733	2.5485709	21	7 21.9	20.4
517637 2015 AW_{40}	16.1	X	219.19274	184.92314	118.11710	10.54919	0.0651547	0.17248529	3.1962053	21	2 4.2	21.0
517638 2015 AJ_{197}	17.7	X	233.62962	282.65918	227.05450	0.70899	0.1303452	0.26087058	2.4257869	21	11 2.8	20.7
517639 2015 AL_{255}	15.8	X	113.06386	216.27199	141.68280	16.64392	0.2855547	0.17824719	3.1269499	21	1 12.3	20.5
517640 2015 AX_{283}	17.3	X	338.68779	38.43586	245.31546	3.27035	0.0190232	0.21242866	2.7818090	21	6 6.1	20.8
517641 2015 BL_{4}	18.1	X	61.52453	89.57890	131.19355	23.45068	0.0708346	0.37050242	1.9198856	21	7 17.3	19.8
517642 2015 BL_{24}	18.0	X	273.96470	231.95462	145.61708	23.29877	0.1102487	0.37443754	1.9064107	21	6 30.4	20.4
517643 2015 BQ_{250}	18.7	X	1.97751	162.56223	130.81532	23.12144	0.0413796	0.37300646	1.9112837	21	7 27.8	20.0
517644 2015 BL_{464}	18.4	X	165.00392	285.42627	168.89258	23.34651	0.0684973	0.35918545	1.9600037	21	6 4.6	21.4
517645 2015 BP_{514}	18.0	X	53.53142	148.37971	97.83888	23.53775	0.0643676	0.37568369	1.9021926	21	8 22.3	20.1
517646 2015 BU_{527}	18.9	X	13.37147	95.71995	132.98629	24.47307	0.0592164	0.35354740	1.9807863	21	5 9.1	21.5
517647 2015 BX_{542}	17.4	X	120.38826	331.23671	190.20152	3.46002	0.0286538	0.21154799	2.7895241	21	7 6.8	21.2
517648 2015 BA_{543}	17.0	X	96.24127	201.60863	342.26312	8.09177	0.1274640	0.20972636	2.8056535	21	7 21.9	21.1
517649 2015 BB_{543}	17.3	X	43.99169	182.08613	71.26749	5.26253	0.0985380	0.21636130	2.7479974	21	8 8.2	20.7
517650 2015 BD_{543}	16.7	X	307.18753	260.85184	94.41295	14.40151	0.2193207	0.22171394	2.7035893	21	6 29.5	19.7
517651 2015 BJ_{543}	17.3	X	5.94992	79.63684	194.42075	4.66617	0.0493440	0.21547411	2.7555353	21	7 1.3	20.8
517652 2015 BK_{543}	17.0	X	276.65753	201.47022	161.20942	6.69856	0.0234733	0.21927134	2.7236302	21	6 26.4	20.7
517653 2015 BM_{543}	16.8	X	229.20111	137.96051	228.93068	11.23679	0.0754735	0.19657404	2.9294445	21	4 27.8	21.1
517654 2015 BN_{543}	16.7	X	51.92075	38.06238	250.52757	13.33952	0.1125218	0.23281523	2.6169482	21	10 3.6	20.3
517655 2015 BR_{543}	17.4	X	294.15019	79.53889	285.10151	5.09333	0.0309199	0.22111693	2.7084535	21	7 21.9	21.0
517656 2015 BX_{543}	17.5	X	13.22663	267.07913	32.10967	3.05709	0.0731661	0.21785105	2.7354552	21	8 20.3	20.8
517657 2015 BY_{543}	17.4	X	350.99829	247.54464	42.65230	2.60050	0.0237987	0.20570956	2.8420589	21	7 2.3	21.2
517658 2015 BC_{544}	16.1	X	252.68716	166.34294	177.15212	27.44853	0.0440057	0.18420892	3.0591137	21	5 3.6	20.9
517659 2015 BD_{544}	17.2	X	102.85841	24.37147	177.75797	3.73262	0.0337681	0.20897385	2.8123849	21	8 7.4	21.1
517660 2015 BG_{544}	16.6	X	337.87127	324.87602	36.43191	9.98670	0.1831804	0.21915736	2.7245745	21	9 19.9	19.3
517661 2015 BH_{544}	17.3	X	258.10372	23.66139	53.81650	4.72750	0.0180453	0.22210929	2.7003801	21	9 14.1	20.9
517662 2015 BK_{544}	16.4	X	103.02777	358.56558	100.92928	12.49440	0.0219048	0.18590855	3.0404402	21	4 2.8	20.9
517663 2015 BM_{544}	16.6	X	97.97668	241.28337	210.58832	14.01801	0.1408457	0.18295348	3.0730923	21	3 26.7	21.1
517664 2015 BO_{544}	16.9	X	207.67431	343.16053	72.54439	7.52061	0.0616834	0.20133367	2.8830916	21	6 5.7	20.9
517665 2015 BR_{544}	16.9	X	347.84994	242.34628	89.72750	6.82291	0.0378808	0.21924249	2.7238691	21	8 27.0	20.4
517666 2015 BT_{544}	17.1	X	60.18525	251.24991	16.98385	9.35770	0.0433230	0.22482133	2.6786196	21	9 14.4	20.6
517667 2015 BU_{544}	16.7	X	221.07709	314.88579	94.99181	6.94182	0.0740973	0.20422644	2.8558018	21	6 13.0	21.0
517668 2015 BV_{544}	17.3	X	168.70661	322.99448	249.88434	10.51652	0.1303195	0.23463227	2.6034199	21	11 8.9	21.5
517669 2015 BW_{544}	16.7	X	156.40915	332.84585	261.30146	9.96302	0.0833770	0.23644036	2.5901305	21	11 24.8	20.5
517670 2015 CY_{8}	18.4	X	355.20555	125.64022	145.72717	27.14903	0.0411398	0.35879348	1.9614309	21	6 12.6	21.0
517671 2015 CB_{13}	18.0	X	50.10038	137.84909	124.14341	23.97856	0.0928516	0.38100894	1.8844268	21	9 20.7	20.2
517672 2015 CE_{17}	15.8	X	64.63594	47.02566	67.41773	5.94473	0.1454132	0.17251728	3.1958103	21	3 16.8	19.9
517673 2015 CL_{32}	16.8	X	178.55065	202.10703	345.31724	16.55437	0.0597906	0.24103595	2.5571027	21	10 15.9	20.7
517674 2015 CF_{34}	18.3	X	299.00523	235.20427	121.56436	25.48965	0.0794287	0.38173803	1.8820266	21	7 13.8	19.8
517675 2015 CM_{62}	18.2	X	64.07438	187.09670	30.91247	21.07030	0.0492426	0.36708560	1.9317807	21	7 18.9	20.7
517676 2015 CO_{63}	18.5	X	320.10397	82.87184	22.34799	1.73736	0.1373244	0.27534821	2.3399929	21	—	—
517677 2015 CT_{64}	17.3	X	188.22507	12.39914	72.17723	4.44229	0.0786102	0.21592226	2.7517212	21	6 20.2	21.4
517678 2015 CY_{66}	17.4	X	123.08548	25.05600	168.68842	6.42168	0.0698674	0.22290554	2.6939455	21	8 26.7	21.2
517679 2015 DO_{96}	18.3	X	152.64337	85.55928	347.91157	18.68993	0.0788311	0.33937249	2.0355649	21	4 7.1	20.9
517680 2015 DZ_{110}	16.1	X	52.97388	84.33514	57.63604	11.38726	0.1113433	0.17711838	3.1402216	21	3 31.6	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517681 2015 DE_{198}	18.7	X	11.02210	218.19552	33.25200	12.24340	0.5828038	0.33261045	2.0630612	21	2 28.1*	19.3
517682 2015 DD_{216}	18.1	X	1.79659	191.06270	129.31562	24.30291	0.0812578	0.37895828	1.8912188	21	9 29.9	20.1
517683 2015 DO_{230}	15.5	X	329.05043	305.00108	141.06849	11.25078	0.1196937	0.12521524	3.9569866	21	12 4.9	20.6
517684 2015 DF_{232}	16.7	X	144.30711	333.02706	118.95006	15.77908	0.1806340	0.19073699	2.9889095	21	5 25.5	21.8
517685 2015 DJ_{232}	17.3	X	186.98797	27.02591	89.25958	4.51372	0.1486512	0.21654550	2.7464389	21	7 29.3	21.7
517686 2015 DK_{232}	16.6	X	133.59055	298.19525	279.10531	11.31483	0.1248730	0.22863360	2.6487604	21	10 6.2	21.0
517687 2015 DL_{232}	16.7	X	283.32522	120.80032	306.83054	11.53498	0.0935359	0.22374007	2.6872425	21	9 15.9	20.3
517688 2015 DM_{232}	17.2	X	157.72398	240.12948	251.20172	3.39328	0.0523357	0.20923896	2.8100088	21	7 15.3	21.2
517689 2015 DN_{232}	16.8	X	358.24625	260.18737	103.06431	7.67547	0.0493741	0.22201071	2.7011794	21	10 25.1	20.3
517690 2015 DO_{232}	16.9	X	179.99767	150.51662	64.34394	14.30533	0.1256145	0.23555038	2.5966506	21	11 23.9	20.7
517691 2015 DP_{232}	17.6	X	251.72956	260.71542	173.90245	3.27168	0.1397931	0.22326465	2.6910560	21	8 11.9	21.5
517692 2015 DQ_{232}	16.9	X	234.72924	244.21339	169.38717	6.85752	0.1068082	0.20925906	2.8098288	21	6 29.7	21.2
517693 2015 DR_{232}	17.5	X	356.69009	306.20775	33.57223	1.27520	0.0624569	0.22425639	2.6831163	21	9 18.6	20.7
517694 2015 DS_{232}	17.0	X	134.12123	206.01303	84.51376	8.70412	0.1354246	0.23868950	2.5738339	21	—	—
517695 2015 DT_{232}	15.9	X	65.51802	110.41993	110.55519	8.50910	0.1240135	0.18142582	3.0903190	21	7 28.1	20.0
517696 2015 EM	17.6	X	125.60328	50.92662	118.80154	24.90382	0.0413593	0.36819273	1.9279062	21	8 1.0	19.4
517697 2015 ED_{74}	17.8	X	194.77431	277.58937	177.28326	23.51045	0.0390397	0.36847234	1.9269308	21	7 11.9	20.6
517698 2015 FB_{37}	17.7	X	267.05295	223.86933	171.71616	22.91232	0.1202529	0.36694515	1.9322736	21	7 13.5	20.4
517699 2015 FM_{45}	18.6	X	287.25455	123.87407	150.06643	5.17865	0.1723358	0.30421642	2.1895134	21	2 9.8	21.6
517700 2015 FD_{403}	17.2	X	61.55904	301.64710	40.21311	17.18234	0.1826304	0.24003510	2.5642058	21	—	—
517701 2015 FE_{403}	17.4	X	71.72140	249.81555	74.33741	6.22464	0.0793396	0.23813080	2.5778581	21	12 14.8	20.8
517702 2015 FF_{403}	17.0	X	307.53023	255.70722	150.16658	9.01605	0.0724819	0.22382412	2.6865698	21	10 4.5	20.3
517703 2015 FK_{403}	17.6	X	131.19881	248.28226	355.75139	4.53249	0.0292951	0.23782431	2.5800723	21	11 7.5	21.2
517704 2015 FM_{403}	17.1	X	33.65032	228.21793	100.73595	7.14299	0.0556803	0.22866043	2.6485532	21	10 31.3	20.6
517705 2015 FP_{403}	17.3	X	253.75163	339.36624	137.22753	9.06458	0.0462525	0.22639976	2.6661551	21	10 27.5	21.0
517706 2015 FQ_{403}	17.4	X	110.33926	72.77388	209.94643	13.69509	0.1830848	0.23404382	2.6077819	21	12 11.9	21.9
517707 2015 FS_{403}	16.8	X	134.25266	312.83878	263.25727	11.12286	0.1898783	0.21764563	2.7371761	21	10 8.1	21.6
517708 2015 GA_{52}	17.1	X	45.43054	225.53255	115.19981	9.89195	0.0729750	0.23271314	2.6177135	21	12 3.4	20.6
517709 2015 HM_{7}	18.0	X	278.64428	335.98149	16.43026	21.13990	0.0900187	0.35519816	1.9746445	21	5 20.4	20.5
517710 2015 HV_{30}	17.9	X	269.22588	225.98729	67.53066	6.84128	0.1887113	0.30542681	2.1837250	21	2 18.7	21.2
517711 2015 HL_{91}	18.4	X	282.00095	79.55440	205.36613	3.09110	0.1960261	0.30398770	2.1906115	21	2 15.4	21.4
517712 2015 HO_{155}	16.3	X	114.50001	261.99571	229.18686	11.47978	0.1574571	0.18477960	3.0528118	21	6 7.2	20.9
517713 2015 HX_{172}	18.0	X	141.87076	296.54248	199.96104	21.32213	0.0559041	0.35321811	1.9820171	21	6 30.4	20.9
517714 2015 JF_{3}	17.5	X	283.83286	98.67708	187.22586	20.62967	0.3164400	0.28741407	2.2740362	21	2 7.3	21.6
517715 2015 KH_{36}	17.7	X	259.94269	359.74642	283.73461	4.99382	0.1600810	0.28171849	2.3045837	21	1 29.4	21.1
517716 2015 KS_{36}	18.2	X	283.77380	209.91545	96.73638	3.46674	0.1749379	0.29922324	2.2138040	21	3 24.1	21.2
517717 2015 KZ_{120}	10.0	X	2.60251	66.47017	250.01137	85.53992	0.8217010	0.00306356	46.9517585	21	8 30.9	20.3
517718 2015 KT_{122}	17.7	X	351.46450	190.19397	42.61781	3.96429	0.0339869	0.31464617	2.1408574	21	4 3.4	19.9
517719 2015 KX_{135}	17.9	X	19.50697	280.46152	245.52823	6.36171	0.0770336	0.30337747	2.1935481	21	2 1.7	20.2
517720 2015 KC_{143}	18.2	X	228.67089	271.00518	52.57119	4.28061	0.1790670	0.29114837	2.2545497	21	2 20.7	21.7
517721 2015 KV_{148}	17.5	X	248.52588	197.82431	51.70342	7.21722	0.0726785	0.26310970	2.4120047	21	—	—
517722 2015 KS_{167}	17.2	X	313.62969	356.43584	98.32953	9.29527	0.0849406	0.23531116	2.5984101	21	12 18.4	20.2
517723 2015 LU_{4}	18.0	X	249.55041	322.37687	335.79727	5.04377	0.2154753	0.29175306	2.2514334	21	2 4.8	21.8
517724 2015 LK_{10}	16.8	X	141.94413	291.66986	66.75926	24.49805	0.1379852	0.26955717	2.3733883	21	1 7.4	20.3
517725 2015 LV_{13}	17.9	X	282.34888	270.18174	13.06822	5.78343	0.1646658	0.29346610	2.2426634	21	2 21.6	21.0
517726 2015 LZ_{22}	18.3	X	301.89880	196.26117	94.23692	3.48002	0.2926171	0.30703764	2.1760806	21	3 6.6	21.4
517727 2015 LF_{35}	18.2	X	256.55673	194.98010	96.35597	6.50661	0.1692639	0.27944261	2.3170797	21	2 7.1	21.7
517728 2015 LU_{42}	16.6	X	158.14974	112.90133	85.15942	25.66506	0.2117717	0.21586924	2.7521718	21	10 24.5	21.8
517729 2015 LZ_{42}	18.1	X	193.74911	215.91465	151.11360	1.38950	0.0230674	0.29849969	2.2173800	21	3 6.6	20.9
517730 2015 MN_{6}	18.2	X	290.63734	33.84077	249.68981	3.88583	0.1506933	0.29454376	2.2371898	21	2 28.5	21.2
517731 2015 MQ_{7}	18.2	X	305.43884	334.49154	262.23806	4.98641	0.1181748	0.28197699	2.3031750	21	1 22.4	21.2
517732 2015 MZ_{9}	17.5	X	16.05686	24.49076	133.90011	8.94210	0.0790001	0.27524919	2.3405541	21	1 25.4	20.1
517733 2015 MM_{47}	17.5	X	160.38043	256.63769	75.23646	4.53245	0.1409087	0.24449802	2.5329064	21	1 1.1	21.1
517734 2015 MS_{51}	17.5	X	110.07998	301.22615	52.29322	3.66932	0.1724364	0.22832764	2.6511261	21	—	—
517735 2015 MN_{54}	18.3	X	261.82973	205.15174	95.17274	4.63360	0.2757598	0.28768996	2.2725821	21	2 15.5	22.1
517736 2015 MD_{56}	17.4	X	191.62914	84.36024	248.72958	4.73819	0.1259355	0.26705417	2.3881951	21	1 27.8	20.9
517737 2015 MU_{70}	18.3	X	313.87999	357.80304	201.46342	7.06673	0.0544758	0.26775701	2.3840141	21	—	—
517738 2015 MT_{88}	17.0	X	37.80721	246.41958	153.67152	9.84973	0.1824247	0.21751566	2.7382664	21	—	—
517739 2015 MS_{101}	17.9	X	239.37762	278.62187	37.07101	2.41749	0.3029104	0.27480926	2.3430514	21	2 17.5	22.0
517740 2015 MX_{109}	17.6	X	114.51977	348.26782	14.39257	2.63535	0.0720060	0.24278648	2.5447964	21	—	—
517741 2015 MS_{114}	17.2	X	310.65076	40.24714	239.66792	8.53869	0.1824341	0.30026480	2.2086815	21	3 13.1	20.1
517742 2015 MT_{115}	17.5	X	161.55400	255.74356	102.28536	6.32586	0.1273540	0.25933132	2.4353763	21	1 31.6	21.0
517743 2015 MD_{116}	17.5	X	185.48012	150.94168	181.24978	5.83370	0.1764105	0.25602228	2.4563159	21	1 25.5	21.5
517744 2015 MJ_{117}	17.2	X	257.30966	210.46085	98.45938	7.20959	0.1555402	0.28541077	2.2846647	21	3 3.8	20.6
517745 2015 MV_{123}	18.3	X	292.54969	52.26880	213.13633	5.31068	0.2206121	0.28751250	2.2735171	21	1 31.1	21.7
517746 2015 MZ_{134}	16.5	X	321.42276	192.39807	281.05025	11.62724	0.1044213	0.21511343	2.7586146	21	—	—
517747 2015 MO_{135}	16.4	X	357.05056	243.20865	150.68892	10.14358	0.0965498	0.18120413	3.0928391	21	11 26.3	20.4
517748 2015 MP_{137}	16.9	X	9.65989	147.34680	2.96664	15.32156	0.0581068	0.24507367	2.5289386	21	1 19.4	20.3
517749 2015 MS_{137}	16.4	X	316.50660	233.87624	251.81934	13.08248	0.0519169	0.22860199	2.6490046	21	—	—
517750 2015 NO_{9}	17.4	X	185.51647	79.41751	256.61340	4.90989	0.1475237	0.26138056	2.4226306	21	1 27.6	21.1
517751 2015 NY_{18}	16.8	X	119.57834	230.89421	126.35782	14.76957	0.1605751	0.23302025	2.6154130	21	—	—
517752 2015 NW_{24}	16.6	X	153.10040	79.55205	257.31392	4.56462	0.0577680	0.24632220	2.5203857	21	—	—
517753 2015 OZ_{1}	18.3	X	243.25669	68.72470	229.24394	4.23867	0.2042939	0.27506206	2.3416155	21	1 30.7	22.2
517754 2015 OY_{2}	18.0	X	308.96809	160.59790	120.82326	6.19602	0.2291701	0.29946243	2.2126250	21	3 12.8	20.8
517755 2015 OS_{13}	18.3	X	231.14794	227.23290	67.85535	2.51957	0.1833492	0.26802867	2.3824029	21	1 20.4	22.1
517756 2015 OK_{14}	18.5	X	251.09340	182.91738	110.80801	2.11822	0.1804282	0.27671387	2.3322876	21	2 3.7	22.2
517757 2015 OG_{23}	17.6	X	207.10630	204.27743	135.27999	4.63994	0.2075287	0.26963281	2.3729444	21	2 23.1	21.6
517758 2015 OU_{23}	17.8	X	229.73841	37.79876	270.88929	1.74237	0.1935297	0.27262152	2.3555697	21	2 2.9	21.7
517759 2015 OK_{28}	17.5	X	157.99591	212.37377	120.06017	5.86785	0.2306328	0.23909239	2.5709416	21	1 9.1	21.5
517760 2015 OD_{33}	18.2	X	233.94949	266.34744	50.64371	7.91649	0.2298888	0.27049292	2.3679114	21	2 20.1	22.3

* The additional opposition: 9 25.5, $V = 19.5$

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517761 2015 OC_{42}	18.2	X	251.27873	299.62793	347.33168	0.90398	0.1676113	0.26490451	2.4010976	21	1 28.7	21.8
517762 2015 OA_{44}	18.1	X	243.84353	219.57494	61.55914	6.99670	0.1103250	0.27064491	2.3670248	21	1 16.8	21.6
517763 2015 OX_{65}	17.4	X	219.96814	103.47844	202.92405	2.41638	0.0854913	0.26111051	2.4243006	21	1 23.9	21.0
517764 2015 OX_{73}	17.2	X	168.95566	138.93348	169.51108	13.44628	0.1875088	0.23769536	2.5810054	21	—	—
517765 2015 OD_{77}	16.1	X	86.55608	348.01361	322.02590	9.97898	0.1228144	0.19314514	2.9640136	21	12 10.6	20.7
517766 2015 OG_{85}	17.8	X	317.12505	49.95770	176.34619	6.33381	0.0678134	0.27595904	2.3365386	21	2 1.0	20.8
517767 2015 OQ_{85}	17.7	X	90.64293	265.26427	143.78890	2.87425	0.0809477	0.24313871	2.5423382	21	1 2.6	20.7
517768 2015 OY_{86}	17.2	X	260.77557	310.90628	262.07458	4.86215	0.0055006	0.22569432	2.6717078	21	—	—
517769 2015 OD_{87}	17.6	X	296.19225	52.49013	109.92582	4.38592	0.0881943	0.22459302	2.6804346	21	—	—
517770 2015 OX_{88}	17.9	X	167.34953	303.44699	93.72672	7.62828	0.1061900	0.26713799	2.3876955	21	3 29.4	21.4
517771 2015 OZ_{88}	17.3	X	54.79831	101.75644	336.11104	13.23056	0.0397004	0.23623434	2.5916361	21	—	—
517772 2015 OA_{89}	17.7	X	87.10406	197.02275	312.89614	5.85307	0.0517341	0.28116682	2.3075972	21	5 3.9	20.6
517773 2015 OB_{89}	16.8	X	52.55809	169.12245	170.56171	10.48762	0.1022024	0.18596153	3.0398628	21	12 5.9	21.2
517774 2015 OC_{89}	17.8	X	289.20011	302.95960	348.88539	7.56324	0.0166696	0.28288972	2.2982183	21	3 31.5	20.6
517775 2015 OD_{89}	17.2	X	53.60804	58.39850	17.35355	4.18303	0.1103802	0.24319879	2.5419194	21	—	—
517776 2015 OU_{89}	15.8	X	90.61381	302.66407	38.36726	16.39556	0.0621699	0.18624524	3.0367748	21	—	—
517777 2015 OV_{89}	16.6	X	158.46733	251.95237	62.64594	12.35502	0.1787675	0.21272255	2.7792463	21	—	—
517778 2015 OB_{90}	17.2	X	137.76277	215.45900	147.33368	12.40413	0.1048404	0.24225433	2.5485218	21	1 9.5	20.8
517779 2015 PK_{1}	17.3	X	182.20329	315.10094	9.74126	2.62626	0.1959703	0.25430740	2.4673459	21	1 17.1	21.1
517780 2015 PQ_{2}	17.8	X	256.07607	193.09523	118.02678	7.64965	0.1524541	0.28239863	2.3008819	21	3 5.4	21.3
517781 2015 PM_{6}	18.1	X	250.18406	60.33711	243.53653	2.03781	0.1858619	0.27985880	2.3147819	21	2 13.5	21.9
517782 2015 PB_{11}	17.6	X	242.71067	4.53395	257.37830	6.88109	0.1855758	0.25703564	2.4498556	21	—	—
517783 2015 PQ_{12}	17.9	X	290.47225	237.60970	9.33977	8.43442	0.1174097	0.27326741	2.3518565	21	1 23.7	21.3
517784 2015 PA_{31}	17.1	X	230.14627	350.79777	300.59757	7.56782	0.1927887	0.26163805	2.4210408	21	1 15.6	21.2
517785 2015 PL_{31}	17.6	X	281.93282	121.77775	159.53909	7.04068	0.1202565	0.27915695	2.3186601	21	2 23.3	20.8
517786 2015 PR_{33}	17.4	X	199.32484	127.30636	189.32840	11.91230	0.2020526	0.25496933	2.4630738	21	1 19.0	21.7
517787 2015 PH_{36}	18.0	X	271.30845	275.56898	5.90035	6.83094	0.1834191	0.28024996	2.3126274	21	2 8.5	21.5
517788 2015 PH_{45}	17.5	X	266.11619	161.45987	111.50461	9.96768	0.1604845	0.27136345	2.3628445	21	1 25.1	21.2
517789 2015 PS_{45}	17.8	X	211.35077	272.55152	45.88086	5.74897	0.1506268	0.26138803	2.4225844	21	2 2.8	21.7
517790 2015 PL_{47}	17.8	X	258.05143	142.44016	110.57294	5.72287	0.1511266	0.25951554	2.4342236	21	—	—
517791 2015 PT_{56}	16.5	X	171.85248	300.38491	32.54158	28.39067	0.2391864	0.23535796	2.5980657	21	2 3.0	21.5
517792 2015 PM_{77}	18.1	X	234.98761	24.33664	253.26124	1.51904	0.1437612	0.26431910	2.4046415	21	1 2.9	21.9
517793 2015 PH_{108}	18.2	X	321.81718	104.15814	103.04314	2.29467	0.1260014	0.27568997	2.3380587	21	1 5.3	21.2
517794 2015 PO_{247}	17.3	X	113.46984	284.68645	89.53058	6.65827	0.1521832	0.23694246	2.5864700	21	1 1.8	20.5
517795 2015 PY_{287}	16.7	X	84.26180	20.51015	4.31362	22.22809	0.0364169	0.22833300	2.6510846	21	—	—
517796 2015 PZ_{299}	17.8	X	228.38223	301.35321	2.20645	6.20900	0.1196968	0.26105042	2.4246727	21	1 31.5	21.5
517797 2015 PD_{304}	16.5	X	8.42297	269.38715	130.73998	12.72490	0.0614108	0.19525324	2.9426406	21	12 18.9	20.5
517798 2015 PP_{304}	17.2	X	265.10939	189.55388	76.29445	7.70715	0.0993033	0.26093876	2.4253643	21	1 22.4	20.7
517799 2015 PU_{304}	17.4	X	121.36303	260.66801	84.56470	4.85602	0.1311939	0.22553462	2.6729689	21	—	—
517800 2015 PU_{308}	18.0	X	271.64637	146.40659	154.65972	5.33289	0.1940430	0.28514056	2.2861079	21	3 1.9	21.4
517801 2015 PK_{309}	17.2	X	180.79038	308.25524	46.63685	5.97265	0.1502241	0.25884889	2.4384013	21	2 20.1	21.0
517802 2015 PJ_{310}	17.5	X	271.41216	266.79850	50.93276	8.97932	0.2063527	0.28857174	2.2679502	21	3 25.6	21.0
517803 2015 PG_{314}	16.8	X	101.07937	165.42768	178.04953	14.08945	0.1155243	0.20893916	2.8126962	21	—	—
517804 2015 PX_{315}	17.3	X	332.97235	332.89235	229.56901	8.52696	0.0878814	0.26367508	2.4085555	21	1 20.1	20.4
517805 2015 PE_{316}	17.9	X	352.04214	337.19628	136.30388	2.92530	0.0336214	0.23029465	2.6360085	21	—	—
517806 2015 PK_{316}	16.9	X	205.92493	256.57890	10.10236	13.40952	0.1120050	0.23174519	2.6249975	21	—	—
517807 2015 PL_{316}	16.3	X	336.79971	252.25553	159.87111	13.07812	0.0841420	0.17444182	3.1722614	21	11 17.9	20.6
517808 2015 QU_{5}	17.5	X	212.83637	217.32216	144.98585	7.96774	0.1352482	0.27821979	2.3238640	21	3 29.5	21.0
517809 2015 QX_{12}	16.9	X	103.95006	233.99541	119.79651	6.99495	0.0686428	0.20977511	2.8052188	21	—	—
517810 2015 QA_{13}	16.3	X	65.38511	325.02323	48.97178	11.30174	0.1167294	0.18748681	3.0233533	21	—	—
517811 2015 QK_{14}	18.1	X	2.50663	113.42707	129.53684	6.92687	0.0614883	0.28041385	2.3117263	21	5 11.1	20.6
517812 2015 QO_{14}	17.3	X	173.35143	351.65782	283.35686	2.18392	0.0790997	0.21770724	2.7366597	21	—	—
517813 2015 QR_{14}	16.5	X	344.21317	234.95439	172.68501	14.11789	0.0621109	0.17234486	3.1979413	21	11 21.6	20.9
517814 2015 RG_{11}	17.8	X	141.15496	191.11685	174.02962	3.64585	0.1169561	0.24700123	2.5157644	21	1 17.0	21.2
517815 2015 RX_{18}	17.6	X	222.68301	196.19510	118.13189	1.84831	0.1762202	0.25993551	2.4316010	21	2 6.2	21.3
517816 2015 RH_{20}	17.5	X	232.73850	74.77097	198.56986	6.23585	0.2001387	0.25295162	2.4761545	21	—	—
517817 2015 RP_{22}	17.7	X	234.61070	120.95215	183.56485	4.60230	0.0981592	0.26437208	2.4043203	21	2 4.8	21.4
517818 2015 RH_{29}	16.8	X	225.62009	121.40473	190.33782	7.86074	0.1242492	0.25917663	2.4363452	21	2 4.1	20.7
517819 2015 RN_{29}	17.6	X	264.23576	128.47374	180.19479	8.49211	0.1389713	0.27600670	2.3362696	21	3 9.3	20.9
517820 2015 RX_{31}	16.9	X	223.07343	245.97652	59.50092	16.42368	0.1684321	0.25267655	2.4779512	21	2 1.2	21.2
517821 2015 RC_{38}	17.4	X	246.62641	135.04909	151.55089	5.28931	0.0993751	0.26036231	2.4289429	21	1 27.0	20.8
517822 2015 RD_{39}	16.8	X	114.33894	56.87750	322.41586	3.09802	0.1178872	0.23012640	2.6372932	21	1 6.3	20.0
517823 2015 RC_{46}	17.4	X	96.42110	200.13205	181.48314	5.10146	0.0733381	0.22465835	2.6799149	21	—	—
517824 2015 RL_{46}	16.5	X	301.78656	256.53638	190.34712	12.27595	0.1487203	0.17637502	3.1490387	21	11 1.7	20.4
517825 2015 RX_{53}	17.7	X	292.60328	56.92820	212.23531	4.01789	0.2421908	0.27759735	2.3273364	21	2 4.5	21.4
517826 2015 RY_{72}	17.1	X	318.20172	81.94812	34.67313	2.37876	0.0245710	0.20122430	2.8841362	21	—	—
517827 2015 RB_{76}	16.5	X	313.55934	257.18569	178.91547	3.22843	0.1483339	0.17444579	3.1722133	21	11 5.9	20.2
517828 2015 RY_{77}	17.7	X	247.39515	317.03627	312.71093	4.35545	0.1957317	0.25575981	2.4579961	21	1 5.0	21.8
517829 2015 RL_{82}	18.3	X	357.14811	167.54770	81.04856	8.52000	0.6136014	0.31585749	2.1353805	21	1 21.9	20.8
517830 2015 RF_{89}	16.5	X	125.34757	347.43112	347.88897	15.23492	0.1349323	0.21738081	2.7393987	21	—	—
517831 2015 RB_{97}	18.0	X	229.64287	166.06069	144.70784	1.92090	0.1811597	0.26535380	2.3983865	21	2 6.9	21.7
517832 2015 RY_{97}	16.4	X	40.36122	31.03573	350.56011	1.47489	0.0989137	0.20076859	2.8884989	21	—	—
517833 2015 RP_{101}	17.6	X	213.08743	302.50139	11.48736	2.56674	0.2038323	0.25647963	2.4533949	21	1 29.9	21.6
517834 2015 RY_{101}	16.0	X	332.76357	67.05474	7.10501	18.28245	0.1530484	0.18160184	3.0883218	21	12 3.2	19.9
517835 2015 RE_{106}	17.9	X	214.27148	219.25367	103.31885	2.74018	0.2158731	0.26186931	2.4196152	21	2 9.4	21.9
517836 2015 RN_{106}	17.7	X	262.69817	134.07681	180.01479	6.46405	0.1362307	0.27898834	2.3195942	21	3 15.0	21.1
517837 2015 RO_{116}	17.3	X	242.85507	222.87917	74.06446	7.53251	0.2789680	0.26466635	2.4025378	21	1 31.4	21.6
517838 2015 RQ_{116}	17.2	X	199.62430	275.73014	68.26555	9.47251	0.2239063	0.25752551	2.4467478	21	2 27.9	21.5
517839 2015 RW_{116}	15.7	X	355.18279	302.13408	106.44439	18.35245	0.1975288	0.18051942	3.1006549	21	12 19.4	19.2
517840 2015 RG_{117}	16.4	X	83.08646	287.07148	56.78778	11.72504	0.1733987	0.20139749	2.8824825	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517841 2015 RR_{117}	17.0	X	150.07504	279.09343	71.13749	16.01608	0.1596733	0.23462035	2.6035081	21	1 18.1	21.0
517842 2015 RO_{118}	17.6	X	215.31703	269.95502	52.53318	5.55337	0.2370638	0.26478227	2.4018366	21	2 11.5	21.8
517843 2015 RJ_{166}	17.7	X	242.47338	254.50229	19.35614	1.54572	0.1636860	0.25629382	2.4545806	21	1 6.5	21.5
517844 2015 RR_{192}	18.0	X	252.88844	237.27034	48.46506	2.19170	0.2086695	0.26213928	2.4179537	21	1 27.5	21.8
517845 2015 RY_{193}	16.8	X	351.02633	259.23925	195.13097	1.63089	0.0428170	0.20345351	2.8630302	21	—	—
517846 2015 RQ_{195}	16.7	X	330.36630	44.74224	19.75952	16.31814	0.0814251	0.17975756	3.1094096	21	11 16.9	20.8
517847 2015 RJ_{197}	18.3	X	224.56465	234.86668	85.99181	3.51937	0.2136070	0.26205750	2.4184567	21	2 16.1	22.3
517848 2015 RD_{198}	18.0	X	209.60836	163.83838	157.14476	6.72835	0.2314913	0.25522431	2.4614330	21	2 3.4	22.3
517849 2015 RO_{200}	17.1	X	113.83709	234.35689	80.66041	3.11836	0.0408549	0.19870325	2.9084799	21	—	—
517850 2015 RN_{208}	17.2	X	82.90904	308.29665	49.82980	2.71026	0.0792614	0.20270509	2.8700730	21	—	—
517851 2015 RV_{209}	16.9	X	213.70034	82.74464	145.08333	2.41049	0.0664757	0.20444395	2.8537760	21	—	—
517852 2015 RD_{218}	16.5	X	215.68967	351.27869	187.02762	10.63278	0.0845088	0.18043693	3.1015998	21	11 13.8	21.2
517853 2015 RT_{218}	17.6	X	204.68495	75.26473	177.95294	2.57545	0.0336297	0.21327047	2.7744840	21	—	—
517854 2015 RW_{218}	17.1	X	129.85179	332.26124	9.37304	10.16821	0.1107543	0.22108210	2.7087380	21	—	—
517855 2015 RK_{221}	17.3	X	93.58599	228.99554	102.66716	2.97868	0.0273102	0.19629981	2.9321722	21	—	—
517856 2015 RM_{221}	17.0	X	107.01147	279.51149	78.64406	3.30872	0.0979769	0.21566995	2.7538670	21	—	—
517857 2015 RT_{224}	16.7	X	356.08062	0.70871	34.31069	9.61439	0.0699409	0.17805486	3.1292013	21	11 19.9	20.9
517858 2015 RS_{234}	17.4	X	197.21180	131.17013	170.48455	14.01959	0.1818288	0.23153474	2.6265879	21	1 3.7	22.0
517859 2015 RO_{236}	16.3	X	34.15257	247.96975	153.45264	10.65706	0.1018436	0.19070579	2.9892355	21	—	—
517860 2015 RN_{238}	16.5	X	137.84923	186.70912	131.93279	12.19178	0.1032882	0.20490395	2.8495033	21	—	—
517861 2015 RO_{239}	16.9	X	153.11321	261.93380	92.67874	13.11601	0.1898318	0.23094071	2.6310901	21	1 30.4	21.0
517862 2015 RT_{240}	16.0	X	7.75438	327.80719	85.07833	14.52065	0.1139519	0.18036972	3.1023702	21	—	—
517863 2015 RX_{240}	16.2	X	311.07096	29.07786	86.14274	13.92015	0.0842225	0.17895980	3.1186435	21	12 25.8	20.1
517864 2015 RZ_{241}	16.7	X	309.03190	318.88348	149.32504	11.83969	0.0457732	0.18044562	3.1015002	21	12 18.1	21.0
517865 2015 RZ_{244}	16.0	X	17.95922	324.55812	49.60370	14.09160	0.1402061	0.17827530	3.1266211	21	12 2.7	19.9
517866 2015 RR_{253}	16.9	X	202.56585	58.77072	176.36633	11.15795	0.0956320	0.20176854	2.8789475	21	—	—
517867 2015 RS_{253}	17.8	X	219.60139	61.07964	217.77998	5.21170	0.1724967	0.24363841	2.5388607	21	—	—
517868 2015 RS_{255}	17.4	X	161.23583	199.70026	99.21625	5.19328	0.0820941	0.21396262	2.7684974	21	—	—
517869 2015 RV_{255}	17.4	X	292.90040	218.78606	339.22359	4.12968	0.0832096	0.24045614	2.5612117	21	—	—
517870 2015 RN_{256}	16.8	X	290.31277	286.93307	182.22770	4.66128	0.0961664	0.17833274	3.1259497	21	11 18.5	20.9
517871 2015 RQ_{256}	16.8	X	202.37978	91.94870	128.66501	9.99335	0.0606841	0.18177283	3.0863848	21	12 20.8	21.5
517872 2015 RU_{257}	16.9	X	211.56614	219.68624	0.18183	14.90608	0.0893166	0.20324571	2.8649813	21	—	—
517873 2015 RZ_{257}	17.3	X	234.75998	275.87193	348.05267	2.84818	0.1273467	0.23436215	2.6054199	21	—	—
517874 2015 RR_{258}	16.3	X	311.99582	53.87674	24.44214	16.42055	0.1140750	0.17023055	3.2243663	21	11 4.3	20.4
517875 2015 RS_{258}	16.5	X	305.56555	58.23473	27.52020	11.25494	0.0718493	0.17192893	3.2030969	21	11 9.4	20.8
517876 2015 RT_{258}	17.3	X	213.78843	71.48664	183.70098	4.10360	0.1279622	0.21652885	2.7465797	21	—	—
517877 2015 RC_{259}	16.2	X	4.04613	163.52418	245.22791	8.86661	0.0576386	0.17548603	3.1596648	21	12 17.6	20.4
517878 2015 RY_{259}	16.3	X	121.73244	135.21732	148.54575	11.76021	0.0830145	0.17831282	3.1261825	21	12 11.7	21.3
517879 2015 RF_{260}	17.1	X	164.20931	331.91800	350.12284	5.99122	0.0830470	0.21788650	2.7351585	21	—	—
517880 2015 RO_{260}	16.8	X	235.17661	29.57435	144.60652	1.35966	0.0863037	0.19227894	2.9729087	21	11 30.8	21.1
517881 2015 SC_{3}	17.8	X	233.48978	96.83238	204.50134	1.96758	0.1834459	0.26177349	2.4202057	21	1 29.6	21.7
517882 2015 SE_{3}	17.0	X	119.58129	178.52716	193.67718	18.82004	0.1893278	0.23142002	2.6274559	21	1 10.9	21.0
517883 2015 SC_{9}	17.2	X	273.28456	44.09933	207.54826	8.49944	0.1800725	0.25933080	2.4353795	21	1 4.5	21.2
517884 2015 SM_{17}	15.0	X	300.77460	51.31522	36.25411	22.82034	0.0821958	0.17013684	3.2255502	21	11 3.9	19.2
517885 2015 SJ_{23}	17.3	X	160.02721	255.49238	61.27657	11.21525	0.1288321	0.22190076	2.7020716	21	—	—
517886 2015 ST_{23}	16.8	X	314.57460	76.85679	54.75877	9.72769	0.0780663	0.20242681	2.8727028	21	—	—
517887 2015 SH_{24}	17.1	X	214.93105	240.59762	49.74687	14.00879	0.1379010	0.23475256	2.6025305	21	1 5.6	21.5
517888 2015 SK_{24}	18.1	X	188.28265	107.82462	212.86749	7.96769	0.1047927	0.24291808	2.5438773	21	1 11.6	22.0
517889 2015 SL_{24}	16.0	X	309.34468	244.63942	209.44908	25.07818	0.1821689	0.17329799	3.1862049	21	11 18.1	19.8
517890 2015 SW_{24}	16.5	X	333.03045	94.97773	325.22261	8.90451	0.0921579	0.16048484	3.3536164	21	11 12.9	20.9
517891 2015 TS_{22}	15.7	X	344.43972	31.18230	31.10799	28.05012	0.1683777	0.17833290	3.1259479	21	12 4.8	19.7
517892 2015 TG_{45}	17.6	X	207.53232	77.06993	191.87664	4.68245	0.1288327	0.23104496	2.6302986	21	—	—
517893 2015 TF_{67}	16.3	X	27.06513	27.12235	12.95415	9.89879	0.0816369	0.18614237	3.0378935	21	—	—
517894 2015 TP_{70}	16.3	X	29.04013	355.23328	24.44039	11.34389	0.0992474	0.17780815	3.1320951	21	12 20.4	20.7
517895 2015 TJ_{71}	16.9	X	116.07502	112.36098	238.30428	3.88894	0.1709581	0.21116317	2.7929121	21	—	—
517896 2015 TU_{74}	16.0	X	77.16732	273.10849	39.38343	17.46707	0.1384252	0.17464177	3.1698397	21	11 29.9	20.9
517897 2015 TY_{75}	17.1	X	217.34064	68.24870	216.63282	10.65602	0.1759228	0.23025696	2.6362962	21	—	—
517898 2015 TX_{77}	16.5	X	41.45866	347.75693	46.76933	11.72720	0.0586801	0.18904264	3.0067422	21	—	—
517899 2015 TB_{85}	16.0	X	74.68434	286.82247	49.16577	18.81932	0.1244646	0.18169136	3.0873073	21	12 26.0	20.8
517900 2015 TQ_{90}	16.1	X	108.65375	290.59986	37.56933	11.34058	0.0943249	0.19120805	2.9839985	21	—	—
517901 2015 TD_{96}	16.2	X	252.96948	131.74342	44.24523	8.32345	0.0675321	0.18280200	3.0747898	21	12 24.6	20.5
517902 2015 TE_{101}	17.1	X	221.67936	110.00446	192.56775	8.07873	0.2107057	0.24051914	2.5607644	21	1 22.7	21.6
517903 2015 TL_{101}	17.6	X	193.82378	172.16424	153.29514	4.22116	0.2815500	0.24185904	2.5512979	21	1 31.1	22.2
517904 2015 TS_{104}	16.0	X	118.84319	76.54985	186.95393	11.99382	0.0255527	0.15898635	3.3746559	21	11 8.4	21.0
517905 2015 TZ_{107}	15.7	X	103.52573	256.22789	68.34778	23.31907	0.0327708	0.18186596	3.0853311	21	—	—
517906 2015 TY_{109}	16.6	X	56.37248	247.12490	123.26203	6.92076	0.1230290	0.18271373	3.0757799	21	—	—
517907 2015 TR_{116}	15.9	X	251.04496	359.28854	194.87181	24.19738	0.0546670	0.17999678	3.1066540	21	—	—
517908 2015 TJ_{118}	16.1	X	48.38598	258.06755	148.07242	15.32345	0.1531411	0.19002433	2.9963778	21	—	—
517909 2015 TM_{119}	16.4	X	171.20512	196.01888	133.77378	15.07049	0.1860430	0.21859022	2.7292851	21	1 16.9	20.8
517910 2015 TE_{123}	17.4	X	246.37817	137.04710	125.00754	7.31449	0.1962219	0.23456386	2.6039261	21	—	—
517911 2015 TK_{130}	16.6	X	73.69438	175.20914	171.98627	11.84994	0.1231725	0.18812150	3.0165493	21	—	—
517912 2015 TZ_{131}	17.6	X	205.39054	227.43518	73.66909	13.64155	0.2563931	0.23817203	2.5775605	21	1 12.1	22.3
517913 2015 TV_{132}	16.5	X	37.51565	310.19875	87.06760	11.16709	0.0897576	0.18941720	3.0027772	21	—	—
517914 2015 TY_{132}	16.2	X	286.63103	312.80160	184.82670	16.27171	0.0758149	0.17855521	3.1233527	21	12 19.8	20.7
517915 2015 TT_{137}	16.4	X	28.98276	318.82748	94.15155	10.94240	0.0688379	0.19085196	2.9877090	21	—	—
517916 2015 TH_{141}	16.3	X	276.34375	63.11760	81.75475	12.43256	0.0941401	0.17910118	3.1170020	21	12 12.8	20.2
517917 2015 TM_{144}	17.2	X	239.26295	164.83058	149.45281	14.60261	0.3114024	0.26050381	2.4280633	21	2 15.7	21.5
517918 2015 TO_{148}	18.0	X	260.78234	274.32258	7.32261	2.13868	0.1751331	0.26425311	2.4050419	21	1 31.0	21.7
517919 2015 TZ_{152}	17.0	X	36.95002	235.37360	174.40484	2.12347	0.0650332	0.20577938	2.8414159	21	—	—
517920 2015 TP_{157}	17.8	X	194.26450	132.85447	182.22930	4.57577	0.0622251	0.23959515	2.5673439	21	1 10.1	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
517921 2015 TS_{167}	16.4	X	14.14785	230.14126	187.23695	10.34643	0.0978769	0.19101760	2.9859816	21	—	—
517922 2015 TZ_{167}	16.7	X	99.19046	301.16006	76.86402	15.35214	0.1300389	0.21829377	2.7317555	21	—	—
517923 2015 TM_{168}	16.9	X	99.58639	324.37153	4.17320	1.75865	0.0669631	0.20347136	2.8628627	21	—	—
517924 2015 TE_{170}	16.4	X	28.32214	209.12369	177.77178	8.30280	0.0840563	0.18250941	3.0780751	21	12 27.7	20.7
517925 2015 TV_{170}	16.0	X	322.66706	23.73872	53.10995	16.86876	0.0839682	0.17191373	3.2032857	21	11 22.8	20.0
517926 2015 TP_{179}	16.7	X	161.64652	124.19511	219.63520	13.29717	0.0780344	0.22699251	2.6615116	21	1 10.8	20.8
517927 2015 TV_{182}	16.9	X	92.30303	247.97406	134.31564	4.42274	0.1010241	0.21452429	2.7636629	21	—	—
517928 2015 TL_{183}	16.8	X	66.74384	17.17897	23.57066	6.04616	0.0786786	0.21226037	2.7832792	21	—	—
517929 2015 TR_{193}	17.0	X	93.40889	91.65552	268.19987	3.81605	0.1253769	0.21066414	2.7973210	21	—	—
517930 2015 TQ_{197}	16.6	X	358.60769	231.67203	236.84016	4.13442	0.0507497	0.21212203	2.7844892	21	—	—
517931 2015 TX_{210}	16.9	X	98.54698	323.13607	9.98599	1.74672	0.0458515	0.20364436	2.8612411	21	—	—
517932 2015 TP_{214}	17.1	X	141.00931	313.60540	357.96116	3.67645	0.0924209	0.21430700	2.7655306	21	—	—
517933 2015 TV_{232}	16.8	X	92.10214	114.60443	278.50235	2.29806	0.1012855	0.22032209	2.7149637	21	—	—
517934 2015 TD_{240}	16.4	X	55.44813	103.83484	252.76802	13.98838	0.0819942	0.19038549	2.9925872	21	12 25.6	20.6
517935 2015 TT_{242}	17.4	X	160.63482	155.27943	194.40570	12.73241	0.1892473	0.23717651	2.5847682	21	1 25.9	21.7
517936 2015 TY_{242}	16.2	X	7.96992	324.42757	52.35765	6.22280	0.1807887	0.17335720	3.1854793	21	11 25.4	19.8
517937 2015 TS_{243}	15.8	X	331.44038	196.74249	248.67397	9.73921	0.1161979	0.17793439	3.1306135	21	12 18.7	19.6
517938 2015 TM_{259}	15.9	X	0.59670	7.24719	7.17987	27.06375	0.1327664	0.17263765	3.1943245	21	10 25.7	20.1
517939 2015 TG_{260}	16.4	X	111.38431	100.12296	231.19058	10.84410	0.1234587	0.20379824	2.8598006	21	—	—
517940 2015 TZ_{276}	16.4	X	61.27034	19.79660	327.42410	5.80747	0.1171886	0.19004862	2.9961225	21	12 27.1	20.7
517941 2015 TG_{283}	17.4	X	149.10492	132.02782	206.29746	8.46508	0.1521658	0.22968223	2.6406922	21	—	—
517942 2015 TR_{294}	17.4	X	119.13725	340.94724	18.84734	6.07674	0.0427803	0.22235305	2.6984062	21	—	—
517943 2015 TT_{295}	17.6	X	141.37058	172.75221	162.96048	0.98779	0.1144293	0.22395904	2.6854907	21	—	—
517944 2015 TN_{299}	17.5	X	170.15714	165.69863	123.24503	1.46903	0.0393663	0.21354783	2.7720812	21	—	—
517945 2015 TF_{303}	15.8	X	33.95725	337.92838	28.17254	18.24320	0.2258270	0.17735378	3.1374423	21	12 28.9	20.3
517946 2015 TO_{303}	16.4	X	224.87444	150.56429	45.91149	16.73434	0.0919462	0.18635988	3.0355294	21	12 11.5	21.0
517947 2015 TS_{304}	16.7	X	70.03064	288.22308	77.15390	12.87774	0.0507334	0.19493881	2.9458040	21	—	—
517948 2015 TQ_{305}	16.3	X	67.16328	225.95263	102.59373	12.47018	0.0346075	0.17517905	3.1633550	21	11 29.8	20.9
517949 2015 TD_{308}	16.5	X	20.61083	299.43584	92.62449	17.75482	0.1346018	0.18527226	3.0473976	21	12 31.2	20.5
517950 2015 TN_{317}	17.0	X	111.45422	112.25601	189.63840	7.41371	0.0463035	0.19093172	2.9868769	21	12 20.5	21.5
517951 2015 TE_{320}	16.6	X	339.96160	270.14684	146.21784	1.39469	0.1639628	0.17519984	3.1631048	21	11 26.4	20.1
517952 2015 TM_{323}	16.9	X	93.00138	231.40396	139.95428	7.66081	0.1136650	0.21120177	2.7925718	21	—	—
517953 2015 TA_{324}	16.9	X	151.27018	133.62504	195.97136	14.82875	0.1545793	0.22534026	2.6745056	21	—	—
517954 2015 TF_{332}	16.4	X	79.72855	190.69605	138.50371	11.72410	0.0515804	0.18214147	3.0822190	21	12 17.4	21.0
517955 2015 TY_{344}	16.8	X	295.89562	266.56984	194.95568	8.94763	0.0615584	0.17436200	3.1732295	21	11 20.2	21.1
517956 2015 TM_{347}	16.7	X	113.15445	289.01754	78.75027	6.75551	0.0283840	0.21809343	2.7334281	21	—	—
517957 2015 TT_{358}	17.6	X	196.75069	148.36253	164.30041	9.07402	0.1663221	0.23786677	2.5797653	21	1 14.5	21.9
517958 2015 TO_{359}	17.0	X	166.51612	113.45783	182.25272	1.83200	0.0566338	0.20634503	2.8362208	21	—	—
517959 2015 TW_{359}	16.3	X	88.02221	185.58908	130.93177	21.11517	0.1326185	0.17507324	3.1646295	21	12 20.6	21.4
517960 2015 TX_{359}	17.3	X	220.14036	94.74416	177.57547	5.95260	0.1040103	0.22149869	2.7053406	21	—	—
517961 2015 TQ_{360}	16.8	X	222.82059	171.91159	84.74532	14.57516	0.0459784	0.21505488	2.7591153	21	—	—
517962 2015 TK_{364}	15.8	X	256.47221	319.05928	221.33493	22.60057	0.1384514	0.18397698	3.0616842	21	12 22.1	20.3
517963 2015 TM_{364}	16.2	X	213.77826	129.32476	90.08844	12.68035	0.0532973	0.18014229	3.1049808	21	12 31.9	20.8
517964 2015 TS_{364}	16.8	X	263.07676	10.15757	153.75183	9.94212	0.0514669	0.18191248	3.0848050	21	12 25.0	21.2
517965 2015 TY_{364}	16.2	X	216.69051	131.27922	80.67313	7.95328	0.1033710	0.18116986	3.0932291	21	12 20.8	20.9
517966 2015 TC_{365}	16.4	X	311.27575	358.44962	118.83594	9.20736	0.0729735	0.18536472	3.0463841	21	12 31.1	20.4
517967 2015 TY_{365}	15.7	X	157.48305	163.99945	110.47781	24.46946	0.1404942	0.18910571	3.0060737	21	—	—
517968 2015 TT_{366}	18.1	X	178.87530	325.91351	160.05560	5.09558	0.0794662	0.29101986	2.2552134	21	8 4.5	21.0
517969 2015 TW_{366}	16.2	X	208.48806	54.25077	166.39090	16.99849	0.0982076	0.17195804	3.2027354	21	12 22.0	21.3
517970 2015 TX_{366}	17.0	X	42.83715	226.91205	173.43483	11.90405	0.1088723	0.19123961	2.9836702	21	—	—
517971 2015 TZ_{366}	16.2	X	300.31625	257.46837	170.34587	8.10576	0.0946863	0.15606453	3.4166454	21	10 9.5	20.7
517972 2015 TO_{367}	16.5	X	120.10478	138.15379	174.02130	10.92825	0.1279277	0.18533181	3.0467448	21	—	—
517973 2015 TY_{367}	15.7	X	82.58950	270.87299	52.33793	10.00792	0.0790408	0.18163592	3.0879355	21	12 14.9	20.2
517974 2015 TC_{368}	17.0	X	235.73885	204.41130	59.15886	13.89655	0.1343429	0.22559691	2.6724769	21	—	—
517975 2015 TH_{368}	15.8	X	66.19600	282.62704	54.15984	14.88796	0.0735680	0.17664898	3.1457820	21	12 10.1	20.4
517976 2015 TT_{368}	16.2	X	160.61544	56.78431	201.04697	11.06233	0.0332945	0.17244200	3.1967403	21	12 18.4	21.0
517977 2015 UD_{1}	16.2	X	27.59743	173.03640	182.75946	9.44325	0.0866346	0.17466324	3.1695799	21	11 19.6	20.5
517978 2015 UQ_{2}	17.5	X	158.73824	49.26218	268.79861	0.51790	0.1136640	0.22369479	2.6876052	21	—	—
517979 2015 UP_{3}	17.2	X	124.56433	292.49911	65.38469	6.10838	0.0892624	0.22224048	2.6993173	21	—	—
517980 2015 UW_{5}	16.4	X	357.19812	11.86609	42.91517	8.42565	0.1760750	0.18398655	3.0615780	21	12 28.6	20.0
517981 2015 UL_{7}	15.8	X	4.28192	276.95352	124.45708	17.09376	0.2232271	0.17705846	3.1409300	21	12 28.2	19.5
517982 2015 UD_{20}	17.1	X	180.18320	246.51104	40.76790	7.92603	0.1411788	0.22025309	2.7155307	21	—	—
517983 2015 UH_{20}	17.2	X	183.57310	244.65214	46.01478	5.69058	0.0904460	0.22062141	2.7125075	21	—	—
517984 2015 UL_{21}	16.0	X	290.58419	81.90728	33.13952	21.72896	0.0770152	0.17939564	3.1135902	21	11 22.4	20.3
517985 2015 UN_{21}	16.6	X	92.81270	236.51393	120.34380	3.00832	0.0830612	0.20589572	2.8403455	21	—	—
517986 2015 UV_{21}	17.4	X	284.02752	62.48852	194.06042	13.05474	0.2261628	0.25769296	2.4456877	21	1 15.5	21.6
517987 2015 UQ_{24}	16.8	X	151.07851	263.77441	70.86817	7.05239	0.0363157	0.22278074	2.6949515	21	—	—
517988 2015 UD_{31}	16.3	X	357.49511	227.97865	184.88196	4.70205	0.0534319	0.18323993	3.0698888	21	12 15.6	20.4
517989 2015 UY_{32}	16.8	X	286.94533	1.02684	109.94405	2.55681	0.1392332	0.17148730	3.2085938	21	11 9.1	21.0
517990 2015 UB_{36}	16.9	X	228.70785	152.88890	81.49643	6.08439	0.1041462	0.21085844	2.7956023	21	—	—
517991 2015 UE_{39}	17.4	X	248.88584	201.53492	97.09055	3.19967	0.1650538	0.25962849	2.4335175	21	2 11.4	21.2
517992 2015 UX_{44}	16.5	X	314.41880	311.07954	148.62490	11.06737	0.0571194	0.17617304	3.1514451	21	12 13.7	20.8
517993 2015 UQ_{49}	16.3	X	114.91305	149.40643	167.95376	15.37012	0.0251352	0.18617635	3.0375239	21	—	—
517994 2015 UA_{50}	16.7	X	266.67593	50.85815	109.46822	10.31052	0.0510541	0.18288440	3.0738661	21	12 25.5	20.9
517995 2015 UY_{53}	17.0	X	218.51391	208.25389	30.55246	14.20673	0.1495698	0.21416470	2.7667555	21	—	—
517996 2015 UG_{55}	16.6	X	312.47973	68.32051	33.69967	11.16946	0.1206199	0.18140146	3.0905957	21	12 8.5	20.5
517997 2015 UQ_{57}	16.4	X	296.00900	325.16533	141.97602	10.61576	0.0619756	0.17137269	3.2100242	21	11 27.8	20.9
517998 2015 UL_{73}	17.1	X	89.52320	342.80646	26.04783	4.64336	0.0791228	0.21145810	2.7903145	21	—	—
517999 2015 UD_{79}	15.7	X	17.46471	310.88376	81.83186	21.33494	0.1217454	0.18127300	3.0920556	21	12 24.2	19.6
518000 2015 UK_{86}	16.5	X	113.05824	88.17375	218.58228	11.41662	0.0482536	0.19165326	2.9793755	21	12 27.2	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518001 2015 UT_{87}	16.1	X	67.90463	170.40003	166.36564	16.52655	0.1370044	0.17640808	3.1486453	21	12 22.2	21.0
518002 2015 VM_{5}	16.6	X	13.84141	299.98435	123.53670	9.55581	0.1646380	0.19212078	2.9745401	21	—	—
518003 2015 VC_{32}	16.3	X	32.29128	355.92106	24.13115	9.19599	0.1295147	0.18186152	3.0853813	21	12 31.5	20.6
518004 2015 VZ_{35}	17.2	X	108.63336	303.69306	36.20269	12.57441	0.0709038	0.19967251	2.8990599	21	—	—
518005 2015 VA_{37}	17.1	X	138.05418	316.33034	42.64027	14.25495	0.1913678	0.22561545	2.6723304	21	1 23.6	21.3
518006 2015 VU_{39}	16.4	X	26.39795	0.49272	44.31801	9.67230	0.0462840	0.18718066	3.0266491	21	—	—
518007 2015 VQ_{41}	16.8	X	191.52222	201.00039	96.44427	14.76105	0.2447811	0.22682491	2.6628225	21	—	—
518008 2015 VQ_{51}	17.1	X	257.10146	203.91433	98.27604	15.69803	0.1685846	0.26844894	2.3799158	21	2 26.4	21.0
518009 2015 VL_{55}	16.4	X	20.70201	192.67290	202.00956	10.34354	0.1224286	0.18619149	3.0373593	21	—	—
518010 2015 VJ_{61}	16.5	X	111.19674	92.37813	203.50488	15.49018	0.0470879	0.18309533	3.0715048	21	12 11.8	21.3
518011 2015 VF_{81}	16.6	X	316.81161	7.76342	84.69815	5.33486	0.0785017	0.17689007	3.1429230	21	12 6.2	20.6
518012 2015 VY_{83}	16.9	X	125.77470	167.56354	183.99533	12.59841	0.1920632	0.21770026	2.7367182	21	—	—
518013 2015 VN_{93}	16.4	X	13.12114	354.48975	43.77562	20.11168	0.0969757	0.17783525	3.1317769	21	12 19.3	20.8
518014 2015 VR_{94}	15.8	X	84.41069	90.97369	246.69946	8.88105	0.0673452	0.18382664	3.0633532	21	—	—
518015 2015 VK_{110}	16.9	X	92.48089	331.82670	38.04000	5.65742	0.1693667	0.20861351	2.8156225	21	—	—
518016 2015 VQ_{114}	16.1	X	10.36212	208.13580	200.11332	7.70879	0.0823338	0.18416750	3.0595723	21	12 29.5	20.2
518017 2015 VM_{119}	16.4	X	46.27741	335.98029	44.81796	12.14463	0.1432137	0.18606099	3.0387794	21	—	—
518018 2015 VN_{137}	16.3	X	342.91428	210.27461	209.54139	11.70341	0.0619941	0.17028188	3.2237184	21	12 2.3	20.6
518019 2015 VS_{137}	16.2	X	34.47912	356.75190	45.69226	10.45886	0.0794583	0.18616320	3.0376670	21	—	—
518020 2015 VD_{144}	16.9	X	181.83937	162.40566	167.27826	14.73727	0.2697777	0.23647094	2.5899071	21	1 26.4	21.6
518021 2015 VL_{149}	16.3	X	23.21094	234.79392	153.43252	11.68159	0.0709879	0.17488512	3.1668985	21	12 20.3	20.8
518022 2015 VT_{150}	15.9	X	300.54165	15.37470	112.53115	11.68972	0.0511461	0.17813618	3.1282488	21	12 29.0	20.1
518023 2015 VP_{154}	16.2	X	212.81608	148.03605	63.95924	14.00780	0.1332186	0.17862712	3.1225144	21	12 12.5	20.9
518024 2015 VQ_{155}	16.5	X	210.90706	307.65686	269.34396	3.12300	0.0942884	0.18038516	3.1021933	21	12 21.5	21.2
518025 2015 VV_{155}	17.1	X	169.44609	231.92654	89.32187	3.30862	0.1252602	0.22110576	2.7085447	21	—	—
518026 2015 VG_{156}	16.5	X	305.00117	350.92843	127.01722	11.61649	0.0408520	0.17782323	3.1319181	21	12 23.9	20.8
518027 2015 VS_{156}	17.1	X	209.94178	236.55767	52.10670	3.90823	0.1574076	0.22981418	2.6396814	21	—	—
518028 2015 VE_{157}	17.6	X	77.73100	297.49672	279.42155	7.19620	0.0523773	0.28656154	2.2785442	21	7 29.9	20.3
518029 2015 VH_{157}	16.7	X	307.95528	353.33141	142.65016	11.80315	0.0544429	0.18546319	3.0453058	21	—	—
518030 2015 VK_{157}	16.3	X	315.47536	34.44134	70.14868	9.93316	0.0491088	0.17554330	3.1589776	21	12 19.6	20.6
518031 2015 WQ_{18}	18.1	X	146.05321	248.70630	244.38005	4.28514	0.0950487	0.27637956	2.3341680	21	7 6.9	21.3
518032 2015 WX_{18}	16.2	X	95.15997	263.59407	84.51371	13.99656	0.1389200	0.19573403	2.9378198	21	—	—
518033 2015 XE_{7}	16.3	X	321.35458	252.22774	229.36410	14.61151	0.0460240	0.18373369	3.0643864	21	—	—
518034 2015 XL_{12}	16.4	X	332.45354	52.05283	112.66155	15.15194	0.0048763	0.23031812	2.6358295	21	—	—
518035 2015 XP_{14}	16.5	X	146.99918	218.64304	69.35244	10.32884	0.0108494	0.18748707	3.0233505	21	—	—
518036 2015 XF_{41}	16.4	X	24.53470	325.61986	81.51463	9.85765	0.1112977	0.18316972	3.0706732	21	—	—
518037 2015 XA_{57}	16.4	X	62.27420	261.40446	100.98799	13.67804	0.1694044	0.18475389	3.0530950	21	—	—
518038 2015 XF_{58}	16.2	X	114.00915	210.97754	84.34894	13.55341	0.1999096	0.17823992	3.1270349	21	12 22.5	21.3
518039 2015 XB_{60}	16.4	X	328.25863	333.53793	117.86313	9.64175	0.0076623	0.17221719	3.1995217	21	12 21.1	21.0
518040 2015 XL_{63}	16.2	X	201.64108	17.50173	210.99907	11.29870	0.0644991	0.17396298	3.1780800	21	12 25.9	21.1
518041 2015 XQ_{65}	16.4	X	117.89337	260.13137	69.21927	11.06604	0.1016901	0.19191942	2.9766203	21	—	—
518042 2015 XO_{66}	17.1	X	169.11683	245.43213	63.64943	4.22796	0.1856998	0.21786766	2.7353162	21	—	—
518043 2015 XB_{68}	17.3	X	226.55310	75.25485	208.48176	10.93783	0.1888958	0.22612986	2.6682761	21	1 6.8	21.9
518044 2015 XA_{69}	16.7	X	216.54908	76.78845	225.15747	16.43548	0.2320445	0.23255689	2.6188859	21	1 16.6	21.6
518045 2015 XT_{92}	15.7	X	241.88288	81.42133	98.21087	12.17955	0.0384021	0.17395068	3.1782298	21	12 18.4	20.2
518046 2015 XB_{93}	16.6	X	147.37343	77.86784	194.49099	9.41652	0.0469967	0.17556712	3.1586919	21	12 21.6	21.5
518047 2015 XT_{100}	16.6	X	133.39488	92.21385	204.92931	9.16391	0.0981186	0.18158627	3.0884984	21	—	—
518048 2015 XX_{108}	16.2	X	311.67898	298.49694	167.10095	9.21494	0.0373843	0.16968812	3.2312341	21	12 16.1	20.7
518049 2015 XA_{110}	16.4	X	95.05998	208.08565	116.75670	10.30629	0.0737339	0.17476874	3.1683043	21	12 29.3	21.2
518050 2015 XB_{114}	17.3	X	204.13456	208.40707	86.52491	14.75195	0.1944438	0.22038310	2.7144626	21	1 4.3	21.9
518051 2015 XF_{134}	16.4	X	177.89981	263.38414	70.68484	10.83732	0.1238072	0.22540395	2.6740018	21	1 25.3	20.6
518052 2015 XJ_{136}	16.3	X	170.49537	12.93974	238.19906	8.50968	0.0518942	0.17537643	3.1609811	21	12 21.1	21.1
518053 2015 XF_{166}	16.1	X	179.74828	160.25636	84.50132	13.91499	0.0376349	0.17442472	3.1724687	21	12 24.2	20.6
518054 2015 XT_{194}	15.9	X	126.57876	234.72459	79.76449	10.54122	0.1030710	0.18257559	3.0773312	21	—	—
518055 2015 XC_{201}	16.1	X	354.64059	326.17112	51.75830	6.78563	0.1203593	0.15507951	3.4310979	21	10 28.3	20.3
518056 2015 XN_{220}	16.7	X	148.71734	188.91737	110.80368	3.89829	0.0542096	0.18904166	3.0067526	21	—	—
518057 2015 XF_{254}	15.6	X	60.17823	208.95852	150.71112	17.81657	0.1929413	0.18139301	3.0906917	21	—	—
518058 2015 XW_{275}	16.1	X	120.39527	247.46513	74.65720	10.69629	0.0830508	0.18526136	3.0475171	21	—	—
518059 2015 XQ_{279}	16.5	X	65.90031	151.42205	226.45958	8.25045	0.1185952	0.19029792	2.9935052	21	—	—
518060 2015 XT_{292}	16.1	X	142.46177	199.14699	81.10576	16.68555	0.0604827	0.17311791	3.1884141	21	12 24.9	20.9
518061 2015 XZ_{292}	16.6	X	125.28838	70.02477	236.04400	4.90579	0.0956841	0.17983099	3.1085632	21	—	—
518062 2015 XH_{294}	16.1	X	51.06380	331.62187	72.01928	11.20163	0.0849297	0.18897819	3.0074259	21	—	—
518063 2015 XU_{334}	16.2	X	54.57637	138.11824	236.74598	8.69131	0.1378889	0.17866829	3.1220347	21	—	—
518064 2015 XN_{342}	16.3	X	46.48352	283.90740	91.63823	12.48215	0.0821852	0.17413613	3.1759729	21	—	—
518065 2015 XL_{360}	16.3	X	220.57595	98.24621	101.11113	13.72252	0.0498168	0.17468651	3.1692985	21	12 16.1	20.9
518066 2015 XY_{376}	16.2	X	56.00011	317.56206	58.53607	9.62049	0.1125621	0.17883619	3.1200803	21	—	—
518067 2015 XT_{380}	16.0	X	80.83450	305.01613	52.59434	9.38526	0.1172740	0.18839013	3.0136811	21	—	—
518068 2015 XE_{397}	16.5	X	121.12270	226.32664	85.66164	10.46616	0.0754610	0.17430164	3.1739620	21	—	—
518069 2015 XG_{399}	17.7	X	141.60771	72.73723	96.07511	8.62895	0.0411042	0.28548548	2.2842661	21	8 20.9	20.7
518070 2015 XH_{399}	16.8	X	321.76889	271.32149	242.32043	10.15131	0.0700804	0.17295526	3.1904127	21	—	—
518071 2015 XK_{399}	16.5	X	353.85973	325.78005	176.10191	9.61231	0.0301351	0.17853107	3.1236343	21	—	—
518072 2015 XS_{399}	17.5	X	141.44923	132.43807	339.06340	0.86370	0.0746112	0.23575033	2.5951821	21	6 1.3	21.2
518073 2015 XB_{400}	16.3	X	54.03999	253.98931	184.94691	17.99961	0.0846453	0.17830844	3.1262338	21	1 3.5	20.7
518074 2015 XD_{400}	16.5	X	324.51415	10.72255	213.88640	9.35445	0.1758750	0.19075939	2.9886756	21	2 7.5	20.6
518075 2015 YD_{11}	16.1	X	310.55447	231.95640	217.24113	16.44061	0.1094877	0.17686191	3.1432566	21	11 21.3	20.1
518076 2015 YB_{24}	17.1	X	90.23565	179.96557	227.95610	0.88942	0.1216655	0.19801115	2.9152532	21	1 17.4	20.7
518077 2015 YD_{24}	16.4	X	218.80882	321.64762	287.13034	7.95023	0.0527585	0.17460502	3.1702844	21	—	—
518078 2016 AM_{48}	16.9	X	24.83798	159.40850	325.10665	1.16168	0.0092860	0.19911709	2.9044485	21	1 15.6	21.0
518079 2016 AR_{227}	15.9	X	233.42839	183.60581	81.35074	8.83908	0.1327529	0.18129066	3.0918548	21	—	—
518080 2016 AY_{227}	16.8	X	276.39192	194.62474	28.82524	3.72406	0.1365775	0.17995819	3.1070982	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518081 2016 AA_{228}	16.9	X	27.13267	279.39499	139.22313	6.63810	0.1036419	0.16835418	3.2482800	21	—	—
518082 2016 AB_{228}	16.2	X	2.99151	301.27828	124.83349	11.28120	0.0790294	0.16128151	3.3425635	21	—	—
518083 2016 AJ_{228}	16.7	X	21.55065	303.73823	289.52808	13.02787	0.0175014	0.23598664	2.5934494	21	5 26.3	20.2
518084 2016 AN_{228}	16.3	X	64.75608	124.79813	313.46186	14.82584	0.1053123	0.18554937	3.0443627	21	1 21.4	20.1
518085 2016 AO_{228}	16.6	X	326.22871	231.27327	279.08829	5.72892	0.1100877	0.17662002	3.1461259	21	—	—
518086 2016 AP_{228}	16.0	X	228.80357	291.08889	313.90141	9.89449	0.0602798	0.17494251	3.1662059	21	—	—
518087 2016 AQ_{228}	16.6	X	274.22374	243.84201	318.79753	7.75973	0.0503951	0.17392449	3.1785488	21	—	—
518088 2016 AR_{228}	16.2	X	49.02421	119.12878	290.40475	11.14804	0.1126782	0.17512726	3.1639787	21	—	—
518089 2016 AU_{228}	16.4	X	188.71753	182.88506	103.13999	6.03719	0.0348696	0.16905157	3.2393403	21	—	—
518090 2016 AV_{228}	17.3	X	220.10917	323.89773	353.64322	1.51051	0.0531798	0.20398384	2.8580657	21	2 17.4	21.4
518091 2016 AW_{228}	16.6	X	40.95433	68.59785	13.49563	9.46819	0.0846216	0.17910934	3.1169074	21	—	—
518092 2016 AX_{228}	16.1	X	232.10920	319.07026	312.91609	10.95061	0.0623223	0.18071877	3.0983743	21	1 11.6	20.8
518093 2016 AY_{228}	16.0	X	37.92715	118.07560	321.46281	15.72738	0.1937983	0.17581861	3.1556790	21	—	—
518094 2016 AB_{229}	16.1	X	113.65664	322.81995	84.32559	11.48246	0.1843330	0.18480865	3.0524919	21	3 3.6	20.7
518095 2016 AG_{229}	16.2	X	329.71887	318.45749	224.23209	8.20958	0.0318169	0.17437326	3.1730929	21	1 18.4	20.7
518096 2016 AH_{229}	16.4	X	139.01893	171.43950	208.89337	8.32575	0.0125317	0.17989058	3.1078767	21	1 30.5	20.9
518097 2016 AJ_{229}	16.0	X	96.54609	201.16126	206.51466	7.47331	0.0147424	0.17163891	3.2067040	21	1 15.3	20.7
518098 2016 AM_{229}	15.7	X	43.65514	1.66793	102.81961	12.33604	0.0572865	0.17193489	3.2030228	21	1 22.6	20.0
518099 2016 AQ_{229}	16.5	X	168.11553	119.84166	185.63868	10.59194	0.0309081	0.17855299	3.1233786	21	—	—
518100 2016 AT_{229}	16.5	X	51.20707	271.55671	142.67779	9.85475	0.1135252	0.18208626	3.0828420	21	—	—
518101 2016 AY_{229}	16.1	X	214.16341	257.73121	14.34659	11.57199	0.0668463	0.17615347	3.1516785	21	—	—
518102 2016 AK_{230}	16.8	X	167.19453	183.45125	166.73308	10.70780	0.0516917	0.18696962	3.0289261	21	1 30.8	21.3
518103 2016 AM_{230}	17.0	X	317.63520	110.68930	153.84272	13.65155	0.1447143	0.21076131	2.7964611	21	3 28.7	20.6
518104 2016 AO_{230}	16.5	X	182.71308	162.30196	135.52961	10.36208	0.0671390	0.17424236	3.1746819	21	—	—
518105 2016 AQ_{230}	16.6	X	10.17695	318.29182	154.13480	9.60903	0.0536564	0.17537595	3.1609869	21	—	—
518106 2016 AS_{230}	15.9	X	69.77647	327.08903	135.23854	10.60500	0.0807378	0.17970328	3.1100357	21	2 25.9	19.9
518107 2016 BY_{91}	16.2	X	35.96400	193.11412	290.82207	8.88540	0.0918808	0.17869693	3.1217011	21	2 1.9	20.2
518108 2016 BZ_{91}	16.3	X	2.73900	229.83201	295.82184	8.52296	0.1530062	0.17989985	3.1077699	21	1 30.6	19.9
518109 2016 BG_{92}	16.2	X	50.68744	354.02060	129.56728	12.33496	0.0685811	0.17960210	3.1112037	21	2 25.1	20.3
518110 2016 BJ_{92}	16.6	X	322.14353	50.83425	261.88148	13.10913	0.1638303	0.23297979	2.6157157	21	6 2.4	19.5
518111 2016 CY_{165}	15.9	X	65.15927	89.83459	311.41816	14.47132	0.0687521	0.17563124	3.1579231	21	—	—
518112 2016 CK_{286}	16.2	X	286.85849	293.69617	299.01476	10.04090	0.1411570	0.18488565	3.0516444	21	1 13.4	20.8
518113 2016 CL_{286}	16.6	X	93.88203	29.70371	354.49108	9.13228	0.0926012	0.17414194	3.1759023	21	—	—
518114 2016 CR_{286}	16.3	X	207.85316	291.04262	18.01406	14.56654	0.0470235	0.18118846	3.0930173	21	2 3.1	21.1
518115 2016 CU_{286}	16.5	X	142.46228	226.43087	145.97460	9.94657	0.1021840	0.18349479	3.0670456	21	2 6.1	20.9
518116 2016 CA_{287}	18.5	X	138.83404	306.03608	327.80875	6.74258	0.0010636	0.31358667	2.1456769	21	—	—
518117 2016 CG_{287}	17.0	X	357.60552	64.05213	159.49846	12.45080	0.1284936	0.20688056	2.8313241	21	4 9.7	20.3
518118 2016 CJ_{287}	17.4	X	66.53597	64.69461	147.48438	13.41145	0.2076486	0.23356743	2.6113266	21	7 31.4	20.8
518119 2016 CN_{287}	16.5	X	348.96936	95.62008	136.91186	10.88475	0.1014097	0.19789498	2.9163940	21	4 12.3	20.2
518120 2016 CO_{287}	16.3	X	277.95509	219.46847	133.99104	15.46391	0.1335081	0.22089858	2.7102380	21	6 2.4	20.4
518121 2016 CP_{287}	16.5	X	210.02398	152.22331	160.88454	10.39490	0.1103624	0.18641219	3.0349614	21	2 2.3	21.4
518122 2016 CQ_{287}	16.9	X	27.10853	314.49701	172.13169	8.61838	0.1083045	0.18492105	3.0512548	21	1 21.4	20.7
518123 2016 CR_{287}	16.2	X	208.85185	324.61163	6.79601	8.40838	0.0914212	0.18702407	3.0283383	21	2 26.1	20.9
518124 2016 CW_{287}	16.4	X	240.30691	206.31814	104.78279	3.55815	0.0943329	0.18808075	3.0169850	21	3 4.2	21.0
518125 2016 CZ_{287}	16.6	X	20.93806	323.68583	146.39425	11.46820	0.0526024	0.17667636	3.1454570	21	—	—
518126 2016 CD_{288}	16.8	X	165.06156	201.23444	187.62215	7.53759	0.0825709	0.19885327	2.9070169	21	3 17.5	21.0
518127 2016 CM_{288}	16.5	X	317.63184	157.20181	91.63334	9.77339	0.0693879	0.18824262	3.0152553	21	3 24.9	20.7
518128 2016 CN_{288}	16.4	X	169.92501	330.60142	77.08830	7.01339	0.0859371	0.19776570	2.9176648	21	4 18.5	20.8
518129 2016 CO_{288}	16.8	X	250.52441	238.66477	138.15984	4.21478	0.0882136	0.21885505	2.7270829	21	6 2.9	20.8
518130 2016 CP_{288}	16.4	X	149.18891	317.70221	89.99923	9.92773	0.1191522	0.18822190	3.0154765	21	4 2.7	21.2
518131 2016 CT_{288}	16.4	X	16.93280	327.34891	246.59479	9.04819	0.0248886	0.19955560	2.9001922	21	4 26.1	20.2
518132 2016 CV_{288}	16.0	X	348.42373	260.60015	292.92263	7.64506	0.0473485	0.17377828	3.1803314	21	2 22.0	20.4
518133 2016 CX_{288}	16.2	X	33.13559	208.16635	350.98601	9.85482	0.1461003	0.19780543	2.9172741	21	5 5.1	19.7
518134 2016 CC_{289}	17.0	X	35.68569	339.01382	283.34935	8.68388	0.1746450	0.22692044	2.6620751	21	8 14.3	20.0
518135 2016 DZ_{32}	16.5	X	13.38851	52.38929	83.63955	12.81356	0.0705501	0.17434952	3.1733809	21	1 18.9	20.7
518136 2016 EK_{115}	16.6	X	97.47733	165.68874	353.68431	13.95793	0.1916800	0.23248719	2.6194093	21	6 29.3	20.6
518137 2016 EU_{223}	16.2	X	96.44179	142.80255	286.69304	8.97155	0.0645103	0.18129640	3.0917895	21	2 13.8	20.6
518138 2016 EV_{223}	17.0	X	4.08172	337.59965	284.34820	3.85218	0.1136946	0.22071505	2.7117402	21	6 11.5	20.0
518139 2016 EA_{224}	17.8	X	76.14837	258.63324	318.05263	2.93992	0.0934963	0.23731282	2.5837783	21	8 2.9	21.2
518140 2016 ED_{224}	17.7	X	142.83608	166.82051	331.68851	2.13371	0.0545177	0.23490538	2.6014016	21	7 7.9	21.2
518141 2016 EF_{224}	17.0	X	342.56768	180.31047	26.43755	2.04224	0.1269368	0.18229029	3.0805412	21	2 23.9	20.9
518142 2016 EJ_{224}	17.0	X	330.93648	246.99276	62.44991	10.08792	0.1401177	0.21170425	2.7881513	21	6 17.3	20.1
518143 2016 EK_{224}	17.3	X	26.76912	81.62503	176.78809	9.10439	0.1089698	0.21705093	2.7421736	21	7 15.9	20.6
518144 2016 EN_{224}	16.8	X	176.20535	127.09785	331.75229	8.95922	0.1223541	0.23592863	2.5938745	21	6 26.6	20.9
518145 2016 EU_{224}	17.1	X	16.95728	266.76364	1.53667	13.83205	0.2188005	0.21574841	2.7531993	21	7 30.6	19.9
518146 2016 EV_{224}	15.6	X	104.19292	234.39436	159.57483	16.25510	0.1381365	0.17297479	3.1901726	21	1 25.1	20.3
518147 2016 EW_{224}	17.7	X	305.92257	340.56116	320.20524	4.13933	0.1404480	0.21234572	2.7825333	21	4 24.4	21.5
518148 2016 EZ_{224}	17.2	X	309.28107	81.50097	196.21508	5.74989	0.0148337	0.20552610	2.8437499	21	4 20.5	21.0
518149 2016 ED_{225}	16.4	X	19.01585	116.15020	42.35513	10.16027	0.0471227	0.18095390	3.0956896	21	2 26.7	20.6
518150 2016 EM_{225}	16.9	X	315.98368	190.90967	46.96064	10.57009	0.0434081	0.18674320	3.0313740	21	3 12.9	21.2
518151 2016 FH_{13}	10.1	X	21.21042	306.77165	176.40910	93.62864	0.6147114	0.00811011	24.5349246	21	3 28.5	21.7
518152 2016 FT_{34}	16.5	X	93.18441	111.62181	344.93107	3.32540	0.1354201	0.19249715	2.9706615	21	3 25.9	20.6
518153 2016 FZ_{63}	17.1	X	347.55248	144.77138	68.14600	10.14497	0.0462261	0.19230412	2.9726491	21	3 22.6	21.2
518154 2016 FA_{64}	16.5	X	305.75978	225.58856	119.67307	13.78772	0.1582693	0.21273642	2.7791255	21	6 24.1	20.1
518155 2016 GV_{26}	16.8	X	184.13440	59.18055	330.36480	1.25325	0.0785286	0.20299468	2.8673427	21	4 7.1	21.0
518156 2016 GW_{40}	18.2	X	211.96790	353.13522	166.30311	2.59308	0.0913159	0.28434067	2.2903933	21	10 29.8	21.2
518157 2016 GO_{104}	17.2	X	271.69425	164.85111	193.98617	5.52756	0.0181492	0.22389408	2.6860101	21	6 15.4	20.8
518158 2016 GE_{259}	16.2	X	233.38401	220.97967	101.10588	13.43485	0.1275329	0.17788761	3.1311623	21	3 13.8	21.3
518159 2016 GG_{259}	16.5	X	117.02615	27.99536	67.82921	11.86199	0.0901250	0.18871746	3.0101952	21	4 22.3	20.9
518160 2016 GH_{259}	16.9	X	312.83984	220.00555	101.29867	4.87852	0.1291747	0.20863290	2.8154481	21	6 6.2	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518161 2016 GK_{259}	16.8	X	295.51607	262.66922	91.34718	6.02134	0.1374917	0.21233293	2.7826450	21	6 23.2	20.4
518162 2016 GL_{259}	16.9	X	319.69989	209.11693	101.64592	5.22990	0.0938748	0.20844463	2.8171431	21	6 7.5	20.3
518163 2016 GN_{259}	17.0	X	277.81034	274.68406	63.44421	9.91144	0.1254721	0.20229741	2.8739277	21	5 12.6	21.1
518164 2016 GO_{259}	17.5	X	337.30200	121.20295	163.60307	3.73571	0.0605614	0.20988923	2.8042019	21	6 2.8	21.1
518165 2016 GR_{259}	16.7	X	52.05409	309.64534	285.47804	14.20294	0.2270094	0.22413030	2.6841225	21	8 9.8	20.1
518166 2016 GS_{259}	16.2	X	278.96035	258.98774	77.99850	11.17538	0.1130843	0.19243808	2.9712695	21	5 15.9	20.5
518167 2016 HZ_{24}	16.5	X	192.81693	342.99024	64.69695	13.91353	0.1116172	0.20001875	2.8957134	21	5 11.4	21.0
518168 2016 JT_{40}	16.1	X	301.02437	78.71942	309.94758	12.51704	0.0680595	0.20104745	2.8858273	21	8 24.5	19.9
518169 2016 KE_{5}	17.1	X	1.80523	100.85875	209.88495	24.02850	0.1608991	0.21794778	2.7346458	21	8 12.2	20.6
518170 2016 KF_{5}	16.3	X	338.05868	240.05302	92.45896	12.77471	0.1849710	0.21604619	2.7506689	21	8 3.7	19.1
518171 2016 LK_{52}	18.4	X	269.91850	226.22595	165.91754	23.34951	0.0429094	0.38318900	1.8772727	21	7 27.6	20.5
518172 2016 LB_{53}	18.6	X	344.12714	122.72103	184.67136	21.49063	0.0919059	0.38419238	1.8740027	21	7 11.9	20.6
518173 2016 LV_{57}	16.6	X	125.30482	299.25333	254.47419	8.40810	0.1466485	0.23762901	2.5814858	21	9 1.6	20.8
518174 2016 LX_{57}	17.0	X	309.64735	191.66878	165.70228	14.66825	0.0680656	0.21998790	2.7177125	21	7 27.9	20.6
518175 2016 LC_{58}	16.9	X	312.94626	248.66050	172.52222	12.48134	0.0969154	0.22800881	2.6535970	21	11 2.1	20.1
518176 2016 LG_{58}	17.2	X	64.74728	26.09739	256.61373	8.41173	0.0277409	0.22349751	2.6891865	21	9 30.3	21.0
518177 2016 NZ_{3}	16.5	X	10.00113	37.31815	278.97038	6.79029	0.1016059	0.20957106	2.8070394	21	9 4.1	19.9
518178 2016 NW_{57}	18.1	X	106.44351	43.13312	135.39824	24.48534	0.0464614	0.37759065	1.8957827	21	7 17.3	20.0
518179 2016 NW_{70}	17.3	X	25.53080	187.99066	140.56668	6.16163	0.0775160	0.22506942	2.6766508	21	10 21.2	20.7
518180 2016 NA_{71}	17.5	X	50.15400	188.18268	116.57978	2.69079	0.1022588	0.22822873	2.6518921	21	10 27.1	20.9
518181 2016 NG_{71}	17.1	X	347.52816	301.79017	98.62208	11.39335	0.2034911	0.22223319	2.6993764	21	12 6.8	19.7
518182 2016 NK_{71}	16.4	X	333.51022	101.02901	266.06999	12.51863	0.0966172	0.21015398	2.8018462	21	9 9.1	20.1
518183 2016 NR_{71}	17.7	X	27.06367	145.34024	199.43831	14.35636	0.0852047	0.23185165	2.6241939	21	11 15.1	21.1
518184 2016 NW_{71}	17.7	X	127.00890	51.87876	194.53926	3.39167	0.1066182	0.23498426	2.6008194	21	11 10.9	21.7
518185 2016 NX_{71}	17.3	X	3.66907	134.67531	266.06700	6.98739	0.1491008	0.23498713	2.6007983	21	—	—
518186 2016 NF_{72}	16.6	X	357.09459	318.35811	88.21124	22.81129	0.1466042	0.23318212	2.6142025	21	12 28.1	19.4
518187 2016 NH_{72}	17.1	X	113.80850	297.63433	323.56105	9.09308	0.1460528	0.23897929	2.5717527	21	11 15.0	21.3
518188 2016 NK_{72}	17.6	X	345.90168	249.38283	136.65227	2.37834	0.0907352	0.22471986	2.6794258	21	11 5.8	20.6
518189 2016 OT_{6}	16.8	X	302.78407	245.11352	246.90017	12.10239	0.1128614	0.22027205	2.7153748	21	—	—
518190 2016 OW_{6}	16.7	X	102.03235	333.63745	299.08470	12.51461	0.1474463	0.22509641	2.6764369	21	11 16.1	21.1
518191 2016 OZ_{6}	16.0	X	252.05260	17.61035	53.47881	10.55822	0.0598634	0.18989151	2.9977749	21	8 22.9	20.4
518192 2016 PA_{77}	16.4	X	32.82672	58.67374	344.80736	12.50207	0.2640723	0.23535105	2.5981165	21	—	—
518193 2016 PX_{79}	18.2	X	264.60240	232.04724	141.19597	24.39331	0.0854487	0.36397100	1.9427855	21	6 16.1	20.9
518194 2016 PS_{96}	17.5	X	338.63948	269.44991	122.67460	5.93500	0.0751914	0.22800131	2.6536552	21	11 4.2	20.7
518195 2016 PU_{96}	17.8	X	347.31224	308.85943	103.58846	3.87562	0.1630953	0.23548245	2.5971499	21	12 22.3	20.2
518196 2016 PW_{96}	16.8	X	41.32729	301.77596	59.67520	15.69890	0.1268727	0.23128590	2.6284715	21	12 29.8	20.5
518197 2016 PX_{96}	17.0	X	259.24097	310.79307	129.72288	15.18584	0.1271168	0.20191235	2.8775803	21	9 1.7	21.1
518198 2016 PH_{97}	16.9	X	223.03207	203.80824	4.30601	9.52296	0.0843387	0.24316260	2.5421716	21	—	—
518199 2016 PJ_{97}	17.2	X	286.32431	152.71296	16.25679	6.64591	0.0847254	0.25296010	2.4760991	21	—	—
518200 2016 PK_{97}	17.1	X	82.50676	174.08285	161.33199	12.20674	0.0917435	0.23522584	2.5990384	21	—	—
518201 2016 PM_{97}	16.6	X	319.15672	137.95638	282.66080	7.40458	0.0175244	0.23315881	2.6143767	21	11 10.3	20.2
518202 2016 PP_{97}	17.4	X	70.91536	111.65321	192.46157	2.55301	0.1014517	0.23106119	2.6301754	21	11 20.9	21.1
518203 2016 PQ_{97}	17.4	X	9.68112	219.85454	151.68909	6.75919	0.0527251	0.22570382	2.6716329	21	11 20.6	20.9
518204 2016 PD_{98}	17.3	X	87.18282	56.13772	259.18111	4.36933	0.1365869	0.23247470	2.6195031	21	12 25.9	21.2
518205 2016 PE_{98}	17.9	X	348.35696	251.98607	190.07850	8.39615	0.1120741	0.23509938	2.5999703	21	—	—
518206 2016 PQ_{98}	17.0	X	165.04691	199.08307	19.02354	12.02854	0.1214626	0.23156511	2.6263582	21	11 9.8	21.2
518207 2016 PB_{99}	17.8	X	76.09704	252.65613	165.45727	6.76999	0.0878333	0.27238824	2.3569144	21	—	—
518208 2016 QV_{6}	16.9	X	15.95221	149.98617	207.64499	5.64672	0.1912023	0.21896524	2.7261679	21	11 27.1	19.9
518209 2016 QC_{26}	15.8	X	143.08612	242.80326	266.81426	7.91446	0.0286492	0.17552442	3.1592041	21	7 18.6	20.4
518210 2016 QO_{33}	17.7	X	287.21882	102.07436	209.59705	20.97328	0.0873064	0.35540669	1.9738720	21	4 6.6	19.7
518211 2016 QJ_{88}	17.5	X	351.39544	321.45627	127.00757	10.60744	0.1599720	0.23744085	2.5828494	21	—	—
518212 2016 QL_{89}	17.1	X	55.67841	294.09598	91.84069	13.54246	0.1852491	0.24169014	2.5524863	21	—	—
518213 2016 QM_{89}	16.3	X	84.55819	225.32369	96.04951	15.86543	0.0363630	0.22304239	2.6928435	21	12 19.1	20.1
518214 2016 QP_{89}	17.7	X	85.20340	232.70876	89.76653	4.34083	0.1724790	0.23670517	2.5881983	21	—	—
518215 2016 QQ_{89}	16.7	X	250.67693	36.67776	120.51498	14.60090	0.1932686	0.22694998	2.6618441	21	11 23.7	20.5
518216 2016 QR_{89}	17.7	X	9.75016	345.42082	54.47094	12.54073	0.0715572	0.23331898	2.6131800	21	12 29.4	21.1
518217 2016 QS_{89}	17.5	X	69.39922	63.69593	273.16949	13.72929	0.1447836	0.23629119	2.5912204	21	—	—
518218 2016 RB_{19}	18.5	X	118.66236	322.24861	205.73845	20.70182	0.0678571	0.37957425	1.8891722	21	7 16.0	21.1
518219 2016 RE_{19}	18.7	X	261.98729	249.91499	172.59087	26.72097	0.0670285	0.40165798	1.8192754	21	9 2.5	20.3
518220 2016 RP_{38}	18.1	X	342.80935	297.96779	340.27636	18.00642	0.0613350	0.35882274	1.9613243	21	5 12.9	20.4
518221 2016 RN_{42}	18.3	X	357.19188	106.19872	166.40117	21.90662	0.0789540	0.36566129	1.9367938	21	6 12.4	20.5
518222 2016 RP_{42}	18.6	X	119.95338	323.88489	190.17364	22.52589	0.0187161	0.36186458	1.9503176	21	6 21.8	21.3
518223 2016 SO_{1}	18.0	X	179.26120	59.20797	78.45034	19.74733	0.0159733	0.38784597	1.8622152	21	9 15.9	20.4
518224 2016 SN_{9}	18.5	X	12.08466	94.87513	181.69059	23.13645	0.0310984	0.37961261	1.8890450	21	7 13.5	20.9
518225 2016 SL_{35}	17.8	X	120.70655	100.65602	63.84601	22.36008	0.0465614	0.36719798	1.9313865	21	7 17.8	20.3
518226 2016 SK_{50}	17.6	X	110.65655	139.64650	172.64520	5.15743	0.1336161	0.24043806	2.5613400	21	—	—
518227 2016 TZ_{2}	17.8	X	93.88484	12.99882	208.98902	21.18251	0.0393947	0.38154471	1.8826623	21	8 30.6	20.2
518228 2016 TR_{16}	17.8	X	48.76741	65.77967	60.08297	8.57141	0.1368723	0.29201863	2.2500682	21	2 2.8	19.8
518229 2016 TX_{34}	18.5	X	234.45832	194.08078	207.07463	21.05399	0.0796512	0.35860370	1.9621229	21	6 11.4	21.2
518230 2016 TA_{50}	18.2	X	341.78581	193.72320	43.65854	4.98181	0.0482799	0.31271448	2.1496647	21	3 25.1	20.4
518231 2016 TC_{58}	17.1	X	333.88128	166.72448	297.35276	11.69209	0.1892735	0.23184350	2.6242554	21	—	—
518232 2016 US	17.7	X	50.81395	320.05667	123.25631	3.70440	0.2001767	0.26687538	2.3892616	21	—	—
518233 2016 UO_{6}	17.3	X	109.70832	149.15172	276.17225	6.33126	0.0542927	0.29103384	2.2551411	21	2 4.5	20.0
518234 2016 UX_{10}	18.7	X	142.82357	13.99285	20.39922	2.24374	0.0766611	0.29801207	2.2197981	21	2 12.8	21.4
518235 2016 UU_{14}	18.2	X	44.82327	61.33035	36.98784	7.31868	0.1488448	0.26567726	2.3964394	21	—	—
518236 2016 UA_{22}	18.2	X	58.56914	278.13759	175.05977	1.00651	0.1317853	0.27168637	2.3609719	21	1 6.3	20.1
518237 2016 UM_{27}	18.0	X	290.50083	214.63443	33.80994	7.92645	0.0417955	0.30706758	2.1759391	21	1 28.7	20.7
518238 2016 US_{29}	17.0	X	5.95767	237.16192	219.09703	12.79114	0.1130942	0.23831852	2.5765042	21	—	—
518239 2016 UU_{35}	17.5	X	58.34172	97.33271	355.52847	8.33892	0.1338620	0.27475911	2.3433365	21	1 6.2	19.7
518240 2016 UU_{36}	17.9	X	73.19838	43.67715	187.15637	22.33522	0.0354886	0.37694062	1.8979616	21	8 12.3	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518241 2016 UY_{37}	16.3	X	358.62914	30.02438	314.33024	8.76293	0.0394188	0.19063655	2.9899592	21	9 18.5	20.4
518242 2016 UO_{61}	17.7	X	20.66089	350.21669	136.66688	7.49969	0.0854545	0.27680220	2.3317914	21	—	—
518243 2016 UW_{62}	16.3	X	255.43486	299.42278	132.71944	10.12593	0.0627376	0.17312804	3.1882897	21	8 23.0	20.9
518244 2016 UC_{64}	15.8	X	229.12102	307.55041	158.47479	9.55019	0.0719939	0.17555027	3.1588939	21	9 1.1	20.5
518245 2016 UA_{68}	16.9	X	341.94270	263.61346	204.56649	16.92617	0.2506940	0.23351314	2.6117313	21	—	—
518246 2016 UV_{72}	18.3	X	69.30726	225.20770	224.58103	4.48827	0.1367330	0.27679735	2.3318186	21	1 19.5	20.4
518247 2016 UV_{85}	18.1	X	19.15796	64.20032	47.86308	5.47523	0.1499634	0.25580540	2.4577040	21	—	—
518248 2016 UQ_{97}	17.6	X	321.83143	303.92435	224.58878	7.48234	0.0760015	0.26148505	2.4219851	21	—	—
518249 2016 UK_{102}	18.2	X	15.73571	296.29675	222.19677	4.06852	0.0503469	0.28957748	2.2626959	21	1 22.9	20.7
518250 2016 UZ_{126}	17.4	X	57.39930	25.84552	45.30801	7.42232	0.1273992	0.25974762	2.4327734	21	—	—
518251 2016 UK_{136}	17.5	X	89.19140	223.36556	177.16179	4.46305	0.1718071	0.26177203	2.4202147	21	—	—
518252 2016 UX_{138}	17.1	X	357.59099	351.82791	128.95589	14.22755	0.2205374	0.24250142	2.5467903	21	—	—
518253 2016 UU_{140}	18.0	X	152.25232	284.62275	186.31956	20.35778	0.0287143	0.33870704	2.0382302	21	6 7.3	20.8
518254 2016 UE_{148}	17.1	X	20.67897	38.10633	88.07848	6.63641	0.0587249	0.26969954	2.3725529	21	—	—
518255 2016 UK_{148}	17.4	X	30.97575	276.03209	129.67325	4.34932	0.1688648	0.22380943	2.6866873	21	—	—
518256 2016 VV	18.0	X	328.10898	113.72555	215.31370	20.99527	0.1005019	0.36648075	1.9339056	21	7 11.8	20.2
518257 2016 VN_{19}	16.1	X	238.47967	127.59318	29.94861	10.08423	0.0424640	0.17340533	3.1848899	21	11 15.4	20.6
518258 2016 VR_{19}	16.9	X	319.42505	68.60659	5.24826	1.65889	0.1274112	0.19282138	2.9673305	21	11 17.1	20.3
518259 2016 VS_{19}	17.1	X	319.98148	78.10371	89.74226	12.79786	0.1371289	0.23414396	2.6070383	21	—	—
518260 2016 WV_{3}	18.2	X	116.65484	112.55944	314.10453	1.89062	0.1403442	0.28609126	2.2810405	21	3 4.7	20.9
518261 2016 WE_{5}	17.3	X	48.37475	350.58049	51.50026	5.03601	0.1681482	0.23572792	2.5953466	21	—	—
518262 2016 WT_{15}	17.2	X	322.53529	36.80970	57.57776	9.16679	0.1778161	0.21047839	2.7989665	21	12 24.3	20.0
518263 2016 WG_{25}	17.3	X	322.58446	152.61945	50.65645	8.16357	0.1062510	0.26802210	2.3824419	21	1 6.5	20.4
518264 2016 WP_{31}	17.1	X	285.54175	259.82484	250.71830	10.65398	0.1135188	0.22015634	2.7163262	21	—	—
518265 2016 WO_{37}	17.6	X	287.57437	1.47423	252.63186	4.86735	0.1313808	0.28514414	2.2860887	21	1 21.9	20.8
518266 2016 WK_{45}	17.1	X	18.73774	18.65573	68.28241	15.07337	0.1902928	0.23272036	2.6176594	21	—	—
518267 2016 WJ_{52}	16.2	X	336.80836	345.72569	62.31458	11.02733	0.2230117	0.19101679	2.9859901	21	11 14.7	18.9
518268 2016 WP_{54}	17.4	X	17.82415	221.20033	234.95558	12.33454	0.2044476	0.23644393	2.5901044	21	—	—
518269 2016 WW_{56}	17.5	X	348.12732	19.63931	101.25334	3.30112	0.0686577	0.23338344	2.6126988	21	—	—
518270 2016 WY_{56}	17.1	X	321.94981	336.92589	154.42973	11.00100	0.0611887	0.22792646	2.6542361	21	—	—
518271 2016 WZ_{56}	16.9	X	258.77630	59.17223	140.10566	14.05299	0.1445804	0.22074751	2.7114744	21	—	—
518272 2016 WA_{57}	16.7	X	309.40678	272.14374	184.91492	8.50513	0.1161773	0.19595303	2.9356305	21	12 3.8	20.3
518273 2016 XZ_{5}	16.8	X	342.73157	162.05974	281.21234	6.94092	0.1635173	0.21401614	2.7680358	21	—	—
518274 2016 XA_{7}	16.6	X	40.13273	25.60912	24.55102	11.47644	0.1902654	0.23447981	2.6045483	21	—	—
518275 2016 XA_{12}	16.4	X	266.91294	56.71274	58.44456	15.30563	0.1317248	0.18260724	3.0769756	21	10 24.8	20.7
518276 2016 XJ_{20}	15.9	X	24.80597	19.30986	295.60424	9.29167	0.1049300	0.17543471	3.1602810	21	9 20.7	20.2
518277 2016 YR_{1}	16.9	X	103.16229	356.03106	86.59105	7.06732	0.0748099	0.27670827	2.3323190	21	3 3.1	19.7
518278 2016 YM_{5}	16.7	X	49.18775	231.06567	232.19178	7.65016	0.1010424	0.24359784	2.5391426	21	1 10.2	19.5
518279 2016 YN_{5}	16.8	X	64.46595	300.67018	127.30235	28.35745	0.2168457	0.23761592	2.5815806	21	1 2.8	19.4
518280 2016 YZ_{7}	17.0	X	152.82481	332.44938	32.21423	3.35757	0.2560063	0.25262121	2.4783131	21	2 13.9	21.0
518281 2016 YS_{9}	17.2	X	5.44642	7.44721	88.17669	12.98285	0.1446237	0.23405595	2.6076917	21	—	—
518282 2016 YM_{12}	16.6	X	281.19035	68.40452	50.86941	13.93431	0.1114821	0.17549428	3.1595658	21	11 14.7	20.7
518283 2016 YD_{13}	16.0	X	158.83511	173.61068	86.22220	12.57230	0.0435180	0.17531718	3.1616933	21	12 19.3	20.7
518284 2017 AD	16.2	X	257.21694	71.97615	97.23607	12.66884	0.1521099	0.18333103	3.0688717	21	12 11.1	20.5
518285 2017 AG_{6}	16.3	X	247.11898	49.20474	101.69492	18.41951	0.1242091	0.17250317	3.1959844	21	11 14.8	21.2
518286 2017 AV_{6}	16.8	X	66.79736	80.13311	319.16248	5.77137	0.0445420	0.21924749	2.7238276	21	—	—
518287 2017 AF_{8}	16.8	X	14.66870	248.30965	163.10889	10.98821	0.0268259	0.18560729	3.0437293	21	—	—
518288 2017 AW_{9}	16.2	X	343.55363	339.70743	81.95523	18.95233	0.2283352	0.19152462	2.9807094	21	12 18.3	19.0
518289 2017 AQ_{12}	16.2	X	352.16360	300.11206	125.83070	10.30814	0.0839839	0.18904085	3.0067612	21	12 27.9	20.1
518290 2017 AX_{12}	16.6	X	79.80908	304.23167	135.62534	6.64901	0.1137340	0.25468114	2.4649316	21	1 28.8	19.1
518291 2017 AF_{14}	16.1	X	273.64199	34.05384	111.16162	3.77165	0.1399391	0.18235042	3.0798639	21	12 4.4	20.0
518292 2017 BG	16.3	X	357.52338	340.84629	101.96720	13.07948	0.0971745	0.20446240	2.8536043	21	—	—
518293 2017 BU_{2}	16.3	X	30.58079	333.65237	102.82470	15.02122	0.1612869	0.21290782	2.7776337	21	—	—
518294 2017 BF_{4}	16.9	X	105.90269	226.11602	130.22474	6.34632	0.0718461	0.21441852	2.7645717	21	—	—
518295 2017 BW_{4}	15.4	X	275.80136	68.23507	70.31897	10.27950	0.0459920	0.17521803	3.1628858	21	12 9.3	19.8
518296 2017 BY_{9}	17.3	X	155.05481	77.63981	287.85488	5.40575	0.1416078	0.25521670	2.4614820	21	2 3.2	20.9
518297 2017 BV_{10}	16.8	X	300.85127	38.53162	67.22817	2.28299	0.1323867	0.17548215	3.1597114	21	11 24.2	20.5
518298 2017 BH_{17}	16.5	X	209.35847	85.62930	139.48440	9.48246	0.1018519	0.18048799	3.1010149	21	12 28.7	21.3
518299 2017 BR_{18}	16.2	X	353.65586	95.90558	332.12081	8.57932	0.0532740	0.18354493	3.0664869	21	12 29.7	20.4
518300 2017 BA_{19}	16.2	X	206.68088	126.48392	95.42437	11.21224	0.1091088	0.17459115	3.1704523	21	12 20.6	21.1
518301 2017 BX_{21}	16.8	X	358.72432	277.23766	143.50822	6.53199	0.1355875	0.18726533	3.0257366	21	—	—
518302 2017 BF_{23}	16.5	X	214.57590	40.91029	238.86717	4.33774	0.0108753	0.22317034	2.6918141	21	—	—
518303 2017 BX_{25}	16.0	X	212.42453	79.69100	120.68734	16.78813	0.0677769	0.17094441	3.2153835	21	12 7.9	20.9
518304 2017 BG_{27}	16.2	X	269.53831	359.01377	129.14793	18.45032	0.0337878	0.17280845	3.1922195	21	11 25.8	21.0
518305 2017 BD_{33}	16.8	X	348.34926	128.10618	306.33135	4.66021	0.1783682	0.19210788	2.9746732	21	—	—
518306 2017 BP_{34}	15.8	X	277.66580	295.34281	157.97501	27.15967	0.2830938	0.17062527	3.2193917	21	9 14.4	20.3
518307 2017 BB_{36}	16.1	X	198.38974	135.62177	123.11449	4.53582	0.2113772	0.18510282	3.0492569	21	—	—
518308 2017 BU_{37}	15.9	X	248.46942	110.02630	81.36233	9.79938	0.0877857	0.18859582	3.0114894	21	—	—
518309 2017 BG_{40}	16.9	X	30.92314	315.61751	117.90663	5.55376	0.0544918	0.21284618	2.7781700	21	—	—
518310 2017 BK_{52}	16.4	X	308.01236	93.01095	1.85044	5.27078	0.1124486	0.17378948	3.1801948	21	11 21.6	20.5
518311 2017 BG_{54}	16.5	X	130.80532	240.48904	109.81933	10.13677	0.0488044	0.21770146	2.7367082	21	—	—
518312 2017 BP_{61}	16.3	X	8.77193	304.61885	80.57712	10.36987	0.1218262	0.18307638	3.0717168	21	12 3.8	20.0
518313 2017 BA_{63}	16.5	X	266.35650	131.71457	8.17183	7.49736	0.0742652	0.17610696	3.1522334	21	11 23.9	20.9
518314 2017 BM_{65}	15.9	X	300.06512	51.32488	61.57155	10.39698	0.0471939	0.17714176	3.1399453	21	12 9.5	20.2
518315 2017 BB_{67}	16.1	X	316.32010	336.57152	104.78324	17.87575	0.1436742	0.17917976	3.1160906	21	11 23.4	20.0
518316 2017 BV_{70}	17.3	X	35.11912	21.63005	21.18026	2.12307	0.0674932	0.20272916	2.8698459	21	—	—
518317 2017 BK_{74}	16.6	X	219.78459	325.27908	234.94704	3.23303	0.1471027	0.17448089	3.1717879	21	12 4.8	21.3
518318 2017 BB_{77}	17.0	X	305.50767	329.75523	162.51198	2.70169	0.0557230	0.19462147	2.9490053	21	—	—
518319 2017 BZ_{80}	16.5	X	142.55136	154.58499	129.72953	10.25987	0.0717706	0.17465994	3.1696198	21	12 30.8	21.4
518320 2017 BZ_{82}	16.2	X	293.71676	283.16951	203.15339	7.71762	0.0881579	0.18124378	3.0923880	21	12 15.2	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518321 2017 BC_{84}	16.1	X	268.04328	323.73825	205.00654	9.55991	0.0491578	0.19113588	2.9847496	21	—	—
518322 2017 BQ_{87}	17.3	X	113.46976	300.64640	68.27886	9.76676	0.1677589	0.24010275	2.5637242	21	—	—
518323 2017 BO_{96}	15.9	X	295.35409	97.09185	7.13733	15.31252	0.2855624	0.17527470	3.1622040	21	10 19.0	19.7
518324 2017 BV_{96}	17.0	X	36.95012	330.12011	81.17218	4.93654	0.0972761	0.21054939	2.7983373	21	—	—
518325 2017 BN_{100}	16.9	X	209.71746	87.62339	136.25022	1.95236	0.1040235	0.18102413	3.0948890	21	12 27.3	21.5
518326 2017 BR_{104}	16.4	X	317.19775	287.70887	258.20198	13.64976	0.0616917	0.22362532	2.6881618	21	—	—
518327 2017 BC_{105}	15.9	X	248.01980	43.91111	108.73257	17.46597	0.0746459	0.17035346	3.2228153	21	11 22.8	20.7
518328 2017 BU_{105}	16.8	X	224.79738	175.45042	89.28919	12.77679	0.0939363	0.21746352	2.7387041	21	—	—
518329 2017 BT_{108}	16.4	X	188.80350	348.62715	238.18462	10.29688	0.0328563	0.17652767	3.1472230	21	12 14.0	20.9
518330 2017 BN_{112}	16.1	X	342.95229	53.69600	13.19105	9.70174	0.0700928	0.17664302	3.1458528	21	12 10.6	20.4
518331 2017 BC_{120}	17.4	X	86.62383	264.67792	139.71656	7.46926	0.1068657	0.23352582	2.6116368	21	—	—
518332 2017 BM_{120}	16.2	X	41.10945	116.13284	245.92288	6.90712	0.0311777	0.17154755	3.2078425	21	12 5.1	20.6
518333 2017 BT_{121}	13.1	X	348.63491	309.49088	335.93645	24.92795	0.0049008	0.08337927	5.1891630	21	6 28.8	20.2
518334 2017 BK_{124}	16.1	X	290.79836	70.24571	59.70090	9.53841	0.0415473	0.17432270	3.1737064	21	12 18.1	20.5
518335 2017 BO_{128}	16.5	X	49.03938	306.06074	149.64207	22.33137	0.0304758	0.23482428	2.6020005	21	1 3.3	20.2
518336 2017 BE_{131}	16.2	X	76.39702	249.08747	115.86709	18.14232	0.1512535	0.19615408	2.9336242	21	—	—
518337 2017 BM_{134}	16.1	X	331.16426	325.65062	118.13313	14.63012	0.0963812	0.17503012	3.1651492	21	12 17.1	20.2
518338 2017 BH_{137}	16.0	X	330.99617	150.01000	285.88817	8.94811	0.0385223	0.15773798	3.3924376	21	12 1.9	20.8
518339 2017 BJ_{137}	18.2	X	20.89855	157.45265	75.64380	4.25325	0.0817460	0.28127579	2.3070011	21	5 25.9	20.5
518340 2017 BK_{137}	17.6	X	133.53327	26.83203	50.19546	7.49250	0.0940016	0.26427223	2.4049259	21	4 9.0	20.8
518341 2017 CY_{14}	16.5	X	266.03507	50.56006	104.48125	2.45253	0.1273212	0.17560021	3.1582950	21	12 6.4	20.7
518342 2017 CH_{18}	16.4	X	165.63977	163.04687	124.48348	11.40368	0.1217319	0.19298123	2.9656917	21	—	—
518343 2017 CG_{24}	16.9	X	273.46947	122.95443	44.03905	2.88793	0.0947999	0.18524625	3.0476829	21	—	—
518344 2017 CK_{29}	16.3	X	195.08192	96.43864	163.03927	16.50575	0.1744093	0.18146094	3.0899203	21	—	—
518345 2017 CN_{31}	16.4	X	352.58072	344.55672	93.66168	12.49693	0.0435702	0.18299159	3.0726656	21	—	—
518346 2017 CG_{32}	15.8	X	202.68965	145.69602	76.12097	16.05366	0.0980633	0.17879800	3.1205246	21	12 17.4	20.5
518347 2017 DF_{3}	16.6	X	194.68248	113.74535	140.04575	10.98253	0.0928007	0.18237897	3.0795425	21	—	—
518348 2017 DS_{4}	16.4	X	346.39091	285.48586	137.28517	16.97746	0.1013857	0.17198596	3.2023888	21	12 14.5	20.7
518349 2017 DB_{5}	16.4	X	248.46309	49.80599	138.04490	12.85394	0.0965702	0.17649487	3.1476130	21	12 28.5	21.0
518350 2017 DN_{5}	16.2	X	81.03384	357.22915	355.34618	9.01441	0.0695346	0.18241336	3.0791555	21	—	—
518351 2017 DL_{32}	16.4	X	307.35068	161.47947	312.26652	4.02550	0.1128511	0.17741897	3.1366737	21	12 16.4	20.3
518352 2017 DL_{33}	17.1	X	143.45894	184.03424	168.06594	3.96123	0.0656964	0.22567066	2.6718945	21	1 1.4	20.8
518353 2017 DG_{38}	16.0	X	304.21580	275.55216	213.90671	9.56604	0.0786864	0.19009493	2.9956359	21	—	—
518354 2017 DB_{40}	15.7	X	105.12327	223.11435	29.75021	3.13734	0.1510915	0.12421293	3.9782448	21	10 18.5	21.7
518355 2017 DP_{40}	17.7	X	83.60515	26.71249	27.34514	2.18530	0.0726992	0.22568676	2.6717675	21	1 3.0	21.0
518356 2017 DM_{42}	15.9	X	181.84130	278.55191	4.91236	9.23315	0.2997063	0.18399901	3.0614398	21	—	—
518357 2017 DP_{50}	16.1	X	114.13988	204.53365	118.72226	10.17469	0.0474432	0.17569808	3.1571221	21	—	—
518358 2017 DS_{57}	15.8	X	64.02969	347.23685	38.25124	12.39771	0.1346644	0.19208012	2.9749598	21	—	—
518359 2017 DG_{61}	15.4	X	83.87291	269.17466	89.25435	11.48183	0.0901383	0.17809838	3.1286915	21	—	—
518360 2017 DZ_{65}	14.3	X	77.41449	55.16706	153.63171	30.71580	0.0076754	0.08375470	5.1736448	21	7 11.1	21.5
518361 2017 DU_{108}	16.5	X	28.66551	113.14205	15.21720	13.92036	0.0629606	0.22237764	2.6982073	21	1 23.7	20.1
518362 2017 DA_{112}	16.4	X	316.23196	100.74066	10.28818	11.83405	0.1734864	0.18724837	3.0259194	21	12 27.7	19.9
518363 2017 DD_{117}	15.8	X	276.69653	264.79284	250.88346	13.20711	0.1400525	0.17283468	3.1918964	21	12 18.5	20.0
518364 2017 DZ_{120}	16.2	X	213.19868	5.44262	269.21301	8.26748	0.1099001	0.18698153	3.0287975	21	—	—
518365 2017 EJ_{5}	15.2	X	114.92988	224.97356	95.24510	18.25624	0.0981076	0.17711712	3.1402365	21	—	—
518366 2017 EJ_{8}	15.7	X	305.98167	329.15868	167.42516	17.85068	0.1893585	0.17689295	3.1428890	21	—	—
518367 2017 EN_{18}	15.6	X	58.55480	255.94184	102.03630	26.66837	0.2492734	0.17867235	3.1219874	21	—	—
518368 2017 ED_{24}	17.8	X	69.50075	314.79559	281.25087	5.92955	0.0714162	0.29383017	2.2408105	21	8 18.0	20.4
518369 2017 FS_{7}	16.0	X	299.66090	310.18550	174.48365	1.82248	0.0602599	0.16421763	3.3026017	21	12 19.9	20.5
518370 2017 FQ_{8}	17.0	X	346.80927	201.27259	326.63849	7.27017	0.1410018	0.21396050	2.7685156	21	1 2.4	20.5
518371 2017 FC_{25}	16.3	X	87.51303	123.99854	235.88306	7.43538	0.0733945	0.17550400	3.1594492	21	—	—
518372 2017 FC_{27}	15.9	X	306.82461	62.24206	104.54301	9.07041	0.0667231	0.18764092	3.0216977	21	—	—
518373 2017 FO_{50}	16.1	X	132.35123	322.41337	22.43283	8.18524	0.0547298	0.19807794	2.9145978	21	—	—
518374 2017 FS_{53}	16.4	X	128.25692	139.09078	177.64486	8.18426	0.0472192	0.17763156	3.1341706	21	—	—
518375 2017 FJ_{56}	16.5	X	353.57044	21.63465	53.68585	11.41078	0.2105648	0.17650043	3.1475469	21	—	—
518376 2017 FE_{70}	15.5	X	235.82625	44.24620	168.32871	23.33947	0.0652038	0.17549020	3.1596148	21	—	—
518377 2017 FC_{72}	16.0	X	94.16662	157.09204	187.53728	17.92209	0.1893338	0.18174415	3.0867095	21	—	—
518378 2017 FZ_{81}	16.6	X	70.21498	283.48189	152.88953	6.49483	0.0583225	0.20538193	2.8450805	21	1 15.3	20.4
518379 2017 FO_{118}	17.2	X	338.83676	333.24365	254.35123	1.92621	0.1610531	0.23523221	2.5989915	21	2 28.3	20.1
518380 2017 FO_{159}	16.5	X	120.20080	312.96981	51.12094	11.95945	0.1231284	0.20203560	2.8764100	21	1 1.9	20.6
518381 2017 FX_{160}	16.4	X	56.88977	335.21752	61.18182	11.01137	0.0457480	0.17046743	3.2213786	21	—	—
518382 2017 FY_{160}	16.8	X	69.55780	35.59537	61.13136	5.41439	0.0699073	0.21475285	2.7617016	21	2 11.4	20.3
518383 2017 FZ_{160}	16.5	X	286.98205	172.76115	21.79106	2.13473	0.1091630	0.18077212	3.0977647	21	—	—
518384 2017 GL_{9}	15.7	X	273.29269	154.60493	61.34449	12.13407	0.0105788	0.17219133	3.1998420	21	—	—
518385 2017 GM_{9}	16.4	X	245.91883	176.67891	68.98425	6.44674	0.1160880	0.17339167	3.1850572	21	—	—
518386 2017 GN_{9}	16.2	X	248.68704	208.51993	47.13180	9.92490	0.2146859	0.17698806	3.1417629	21	—	—
518387 2017 HZ_{61}	16.5	X	238.60253	81.26545	227.27749	11.63584	0.2299671	0.18724403	3.0259661	21	2 14.5	22.0
518388 2017 HA_{62}	17.0	X	160.15206	181.05275	182.95918	11.31738	0.0816824	0.18999609	2.9966747	21	2 9.9	21.6
518389 2017 QA_{14}	17.0	X	224.96884	196.76961	210.11164	3.54463	0.0701427	0.21451807	2.7637163	21	6 13.6	21.1
518390 2017 TD_{9}	16.1	X	329.50842	167.99063	105.83949	6.80677	0.0929200	0.18032644	3.1028666	21	5 7.8	20.1
518391 2017 TF_{10}	17.0	X	347.25120	105.65002	231.74722	12.18719	0.1967959	0.23389802	2.6088655	21	8 25.3	19.6
518392 2017 TS_{10}	17.2	X	85.16290	52.37230	246.99209	5.38037	0.1147110	0.27429561	2.3459756	21	12 9.3	20.5
518393 2017 TZ_{11}	16.5	X	325.03175	331.81547	0.62451	7.86038	0.2248662	0.21554208	2.7549561	21	6 29.3	19.4
518394 2017 TG_{13}	17.0	X	295.75190	55.09185	319.01985	5.00494	0.0425517	0.21393714	2.7687171	21	8 4.9	20.4
518395 2017 UV_{13}	17.0	X	272.50771	222.68332	208.85280	10.90950	0.1855193	0.23303326	2.6153156	21	8 24.9	20.6
518396 2017 UW_{15}	16.7	X	298.21145	176.80153	172.70459	6.23348	0.0898361	0.20718167	2.8285802	21	6 28.2	20.4
518397 2017 UX_{20}	16.9	X	297.67103	207.34431	151.01671	6.61773	0.0546373	0.21235717	2.7824333	21	7 14.5	20.7
518398 2017 UE_{33}	16.9	X	256.10308	71.26385	22.28806	22.24911	0.1058904	0.23708408	2.5854399	21	9 26.1	20.5
518399 2017 VM_{23}	16.4	X	77.87208	351.21831	250.32471	6.99919	0.1694575	0.21155816	2.7894346	21	9 13.1	20.5
518400 2017 WN_{22}	17.1	X	322.55901	351.43087	55.86853	4.09070	0.1280213	0.23502194	2.6005414	21	10 27.8	19.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518401 2017 XK_{26}	16.4	X	188.05011	81.02244	58.11920	13.07861	0.1252889	0.19196966	2.9761009	21	9 2.6	21.3
518402 2018 AS_{4}	16.2	X	270.75689	50.62545	16.63780	9.53844	0.0689048	0.18125723	3.0922350	21	9 7.2	20.5
518403 2018 AZ_{6}	15.8	X	168.98159	286.14425	246.32405	7.51472	0.0611071	0.16776358	3.2558990	21	9 13.0	20.8
518404 2018 AK_{16}	17.0	X	19.45202	318.91915	48.03560	3.47504	0.0849235	0.21715207	2.7413221	21	11 28.4	20.4
518405 2018 CT_{4}	17.0	X	343.11308	286.54221	144.83848	12.91825	0.1489640	0.23632216	2.5909941	21	—	—
518406 2018 CN_{5}	16.3	X	237.65207	120.35463	22.91345	14.04438	0.2817164	0.20247516	2.8722455	21	10 6.8	20.8
518407 2018 CD_{6}	16.9	X	320.38747	12.64293	74.79675	6.02473	0.2631378	0.23765300	2.5813121	21	12 19.8	18.6
518408 2018 CO_{6}	15.6	X	185.12701	221.32199	313.74717	27.40142	0.1884859	0.17500628	3.1654367	21	9 17.5	21.3
518409 2018 CW_{11}	16.6	X	203.25426	7.17313	170.63967	9.17709	0.1186421	0.18498339	3.0505693	21	10 29.3	21.4
518410 2018 CZ_{11}	18.1	X	359.68261	121.29964	44.19663	8.96562	0.1593315	0.29927105	2.2135682	21	—	—
518411 2018 CU_{15}	16.4	X	245.23246	49.90764	148.93079	33.84426	0.2259154	0.21614637	2.7498188	21	12 31.8	20.9
518412 2018 CV_{15}	16.2	X	219.17494	128.99136	39.94876	14.56308	0.2232537	0.18103965	3.0947121	21	10 24.2	21.1
518413 2018 DV	17.7	X	124.16154	39.01560	111.60225	23.74939	0.0312411	0.38822856	1.8609915	21	6 27.7	19.4
518414 2018 DW	17.9	X	297.93335	152.25631	162.70260	24.35091	0.0729247	0.37668868	1.8988078	21	5 7.1	20.4
518415 2018 DE_{3}	16.2	X	235.38394	142.23516	348.61745	17.09267	0.1675378	0.17766866	3.1337342	21	9 24.7	21.0
518416 2018 DF_{3}	15.8	X	245.41008	123.44102	351.80182	16.78898	0.1515139	0.17509386	3.1643810	21	9 19.9	20.6
518417 2018 DG_{4}	16.6	X	248.72223	187.72890	345.12818	15.46288	0.1714211	0.21187272	2.7866731	21	12 4.2	20.7
518418 2018 EH_{2}	18.8	X	207.76331	268.52215	165.94391	22.15769	0.1431842	0.39683321	1.8339917	21	6 24.8	21.8
518419 2018 EB_{3}	17.6	X	340.28116	28.98878	111.39290	3.32674	0.1723589	0.26715380	2.3876013	21	—	—
518420 2018 EG_{6}	17.6	X	320.39225	66.60647	99.48066	22.45408	0.2540809	0.26579613	2.3957249	21	—	—
518421 1995 QT_{16}	16.0	X	273.56693	141.72114	162.04650	18.30198	0.1170363	0.18004077	3.1061479	21	3 30.4	20.6
518422 1998 WH_{30}	17.5	X	327.54094	87.37804	235.68969	24.83399	0.4105287	0.29550468	2.2323373	21	5 5.9	19.7
518423 2000 GV_{176}	16.9	X	215.78821	242.90176	351.07408	10.14733	0.1725584	0.21843893	2.7305451	21	—	—
518424 2000 WK_{107}	18.2	X	302.74257	271.95664	233.65242	24.16367	0.5421986	0.23620434	2.5918556	21	12 9.0	18.9
518425 2002 CQ_{70}	17.2	X	321.02233	236.26692	316.86998	5.72914	0.0922187	0.25507863	2.4623701	21	—	—
518426 2002 ON_{4}	19.0	X	325.20395	160.96118	134.83545	10.46427	0.4040042	0.30691013	2.1766833	21	3 26.8	21.7
518427 2002 QK_{65}	17.4	X	176.56527	163.53121	146.27552	15.45280	0.1302805	0.23236092	2.6203582	21	—	—
518428 2002 QO_{70}	16.4	X	138.39308	134.44483	148.05340	15.12056	0.1799688	0.17162138	3.2069224	21	12 26.7	21.9
518429 2002 QE_{133}	17.3	X	233.07001	145.18181	162.45307	12.18630	0.1735092	0.24042416	2.5614387	21	2 8.2	21.5
518430 2002 RD_{187}	17.0	X	243.24782	25.63561	268.79928	4.72980	0.2712144	0.23934623	2.5691236	21	1 28.9	21.5
518431 2002 TG_{178}	17.4	X	177.90136	146.23000	210.16656	4.54514	0.2368958	0.23438839	2.6052255	21	2 22.4	21.9
518432 2003 AP_{16}	17.3	X	32.96989	19.69782	112.52994	24.72759	0.1702160	0.27274787	2.3548422	21	1 11.9	19.2
518433 2003 HQ_{24}	17.9	X	302.57976	201.47287	36.05802	2.67086	0.1871473	0.26497566	2.4006678	21	1 16.3	21.2
518434 2003 PB_{8}	17.1	X	206.86246	226.96403	142.70336	9.45080	0.3290728	0.25638718	2.4539847	21	4 3.8	21.8
518435 2003 SP_{258}	16.4	X	33.78191	180.57432	257.93664	12.56766	0.1649532	0.23544644	2.5974147	21	—	—
518436 2003 SG_{435}	16.9	X	168.22951	255.95646	208.66470	5.11790	0.0269073	0.20502166	2.8484126	21	6 22.4	21.0
518437 2003 TP_{46}	17.3	X	31.30533	242.14629	214.49232	10.89601	0.1587430	0.23648386	2.5898129	21	—	—
518438 2003 WL_{5}	15.9	X	16.27131	289.48800	141.46509	11.66489	0.1347903	0.17583671	3.1554625	21	—	—
518439 2003 YY_{182}	16.6	X	275.23752	48.24561	290.80385	8.08073	0.0609087	0.19240759	2.9715833	21	5 17.9	20.8
518440 2004 CL_{1}	19.4	X	74.27176	187.49102	3.19999	15.15170	0.5330732	0.35346401	1.9810978	21	9 2.4	22.7
518441 2004 FC_{6}	17.8	X	347.61264	179.52568	16.55177	8.97749	0.3153339	0.28374124	2.2936179	21	—	—
518442 2004 GO_{54}	17.1	X	221.65485	38.91994	212.61437	7.99354	0.1597711	0.21275355	2.7789763	21	—	—
518443 2004 HU_{13}	17.1	X	250.12457	177.82099	62.94101	6.04616	0.1064372	0.21829400	2.7317536	21	—	—
518444 2004 HU_{79}	16.4	X	354.82394	31.19149	193.85581	4.61792	0.0970450	0.17076443	3.2176424	21	4 11.4	20.4
518445 2004 RW_{84}	17.9	X	5.19171	108.70511	178.14586	24.21257	0.1205775	0.34533894	2.0120512	21	7 21.8	20.1
518446 2004 RL_{357}	17.6	X	295.71796	226.22239	158.40955	4.46868	0.1007552	0.22862223	2.6488482	21	8 10.8	20.9
518447 2004 TS_{371}	17.1	X	115.54728	260.68285	10.09148	13.93787	0.0526178	0.23841584	2.5758030	21	11 21.7	21.0
518448 2004 YG_{27}	16.0	X	353.66625	28.56394	66.12375	11.55119	0.0731271	0.17969319	3.1101522	21	—	—
518449 2005 BF_{38}	16.0	X	74.67150	260.62788	120.58027	14.78476	0.1639020	0.17806060	3.1291340	21	—	—
518450 2005 BD_{50}	16.6	X	197.66847	131.98707	318.55158	9.23998	0.0862457	0.20519352	2.8468218	21	7 9.5	20.9
518451 2005 EJ_{246}	17.7	X	244.15273	85.19553	175.27177	8.41068	0.1243537	0.23378475	2.6097081	21	—	—
518452 2005 ES_{267}	17.4	X	86.05110	312.72162	144.51396	20.05925	0.2350250	0.31127278	2.1562972	21	3 17.8	19.4
518453 2005 EZ_{333}	17.9	X	112.58486	326.81859	6.98282	4.16922	0.0694926	0.28559792	2.2836666	21	—	—
518454 2005 EA_{334}	16.5	X	341.06051	175.11768	126.40998	3.03672	0.0741040	0.19521342	2.9430407	21	6 30.3	20.2
518455 2005 GH_{18}	18.7	X	277.50838	231.63574	182.36866	22.93514	0.0886671	0.39001229	1.8553130	21	9 10.5	20.2
518456 2005 GN_{159}	17.3	X	302.67131	332.72745	206.57941	11.78298	0.1237059	0.22931653	2.6434989	21	—	—
518457 2005 GF_{177}	18.6	X	20.26671	91.84055	208.71912	24.21035	0.0229989	0.38357493	1.8760133	21	9 4.9	20.8
518458 Roblambert	17.0	X	250.82921	76.16897	200.69921	28.03890	0.0448712	0.23607248	2.5928207	21	1 21.8	21.4
518459 2005 GZ_{229}	18.3	X	297.61276	8.10054	213.85445	6.84922	0.0572067	0.29431911	2.2383281	21	—	—
518460 2005 HN_{7}	16.9	X	248.88957	44.88545	198.52750	17.82005	0.1589927	0.23047513	2.6346323	21	—	—
518461 2005 JR_{4}	17.1	X	268.10159	96.57220	97.89487	17.59903	0.2167102	0.22404730	2.6847854	21	—	—
518462 2005 JP_{73}	16.9	X	274.38270	338.01662	219.93351	12.47302	0.1248315	0.22539061	2.6741073	21	—	—
518463 2005 JY_{80}	16.8	X	249.00437	212.42822	117.89794	18.22811	0.5615509	0.22976551	2.6400541	21	3 9.9	22.6
518464 2005 JU_{119}	17.6	X	231.52877	53.49779	215.35823	12.59888	0.2364967	0.22575655	2.6712168	21	—	—
518465 2005 JB_{149}	17.2	X	272.60381	153.55887	52.04721	6.31037	0.1335884	0.22680086	2.6630108	21	—	—
518466 2005 JC_{162}	18.5	X	79.24349	157.99525	67.98584	22.27612	0.0451871	0.37800093	1.8944107	21	9 6.2	21.1
518467 2005 KV_{14}	17.6	X	243.28901	88.10317	107.06609	8.45636	0.0141006	0.27929794	2.3178797	21	—	—
518468 2005 LE_{6}	17.7	X	287.98460	195.20615	77.68435	10.59122	0.2320902	0.29634515	2.2281145	21	2 7.8	21.2
518469 2005 LH_{8}	18.7	X	255.85566	180.43366	86.66006	15.72749	0.5489099	0.22724495	2.6595401	21	—	—
518470 2005 PZ_{4}	17.1	X	192.67299	114.62173	187.66540	13.87162	0.1850492	0.21579269	2.7528226	21	1 2.7	21.9
518471 2005 QZ_{9}	17.2	X	173.09121	183.12636	167.12318	17.51426	0.2979309	0.21747899	2.7385742	21	2 16.4	22.1
518472 2005 QD_{191}	16.9	X	102.51094	356.83754	343.37828	0.39013	0.0837472	0.20175172	2.8791075	21	—	—
518473 2005 QE_{191}	16.0	X	270.54130	39.92927	344.61394	8.87768	0.0976529	0.17531528	3.1617161	21	7 7.9	20.6
518474 2005 RQ_{52}	16.2	X	130.37441	46.06051	1.20329	9.70009	0.0789482	0.15491074	3.4335895	21	3 9.3	21.1
518475 2005 RR_{52}	17.2	X	180.62903	359.54817	328.19862	5.63711	0.0765775	0.21266081	2.7797841	21	1 18.3	21.2
518476 2005 RS_{52}	16.3	X	32.85515	249.00053	351.67225	8.32012	0.1283996	0.17625051	3.1505216	21	7 6.1	20.2
518477 2005 SE_{185}	17.8	X	224.72521	136.94135	202.19907	4.79201	0.2229029	0.28587398	2.2821961	21	3 5.2	21.7
518478 2005 SF_{215}	17.3	X	210.92187	30.86417	304.18593	4.15429	0.1064377	0.28040316	2.3117851	21	2 16.7	20.5
518479 2005 SG_{217}	16.4	X	94.19787	353.18106	28.72816	17.55990	0.2289759	0.20303430	2.8669698	21	1 7.0	20.3
518480 2005 SE_{283}	17.8	X	271.36482	200.31349	120.65462	7.21558	0.2188085	0.29055714	2.2576070	21	3 27.4	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518481 2005 SH_{294}	16.5	X	6.57677	163.25809	204.73220	9.97814	0.0551562	0.18744490	3.0238039	21	11 3.9	20.4
518482 2005 TZ_{42}	17.6	X	280.96261	172.93194	160.92258	9.14943	0.2973310	0.29439877	2.2379243	21	4 13.2	21.0
518483 2005 TG_{189}	17.3	X	245.63227	87.28140	212.84795	22.97949	0.1707498	0.28307986	2.2971890	21	1 30.1	21.5
518484 2005 TR_{198}	17.4	X	343.27566	164.54598	40.63713	7.58479	0.0590523	0.27888363	2.3201748	21	2 15.2	20.2
518485 2005 UF_{13}	17.8	X	258.56531	79.92008	240.25247	1.99134	0.1080496	0.28628112	2.2800318	21	3 19.5	20.8
518486 2005 UC_{44}	18.0	X	149.50780	347.26743	59.85060	6.31544	0.0305353	0.27837577	2.3229958	21	3 10.6	20.9
518487 2005 UT_{532}	17.6	X	185.54349	122.98644	135.34960	1.99643	0.1458023	0.25989360	2.4318624	21	—	—
518488 2005 UX_{532}	16.1	X	50.55690	81.66009	267.50987	8.77189	0.0194322	0.18574448	3.0422304	21	12 1.8	20.5
518489 2005 VV_{137}	18.1	X	220.79882	257.04457	237.79680	4.58848	0.0599215	0.24056698	2.5604249	21	10 3.5	21.5
518490 2005 WC_{208}	16.4	X	254.97314	293.02028	258.39961	8.62617	0.0347505	0.19181455	2.9777051	21	—	—
518491 2005 XW_{119}	17.6	X	139.69546	235.14850	288.83921	1.57185	0.1082764	0.22448501	2.6812943	21	8 10.2	21.6
518492 2005 XX_{119}	17.1	X	98.88738	53.03191	254.10187	10.17042	0.0416600	0.24800997	2.5089381	21	12 22.9	20.4
518493 2005 YT_{7}	16.4	X	90.89841	242.48436	108.57505	11.84915	0.0186658	0.18617422	3.0375471	21	—	—
518494 2005 YY_{207}	16.0	X	355.66294	337.43670	118.66764	11.60757	0.0442410	0.18599457	3.0395027	21	—	—
518495 2005 YU_{229}	16.7	X	276.45883	151.42002	1.00091	4.90710	0.0884323	0.18363403	3.0654950	21	12 23.9	20.7
518496 2005 YZ_{242}	16.7	X	247.09054	144.52737	56.96679	5.73087	0.1095710	0.18568200	3.0429128	21	—	—
518497 2005 YK_{246}	16.8	X	321.60797	271.59126	208.31647	4.97571	0.1327748	0.18474942	3.0531443	21	—	—
518498 2005 YF_{264}	16.5	X	254.85047	54.00137	98.30439	7.45766	0.0769649	0.17839689	3.1252003	21	11 27.7	20.9
518499 2005 YS_{293}	17.8	X	242.57701	194.36849	249.16935	3.01733	0.1198707	0.22850527	2.6497520	21	8 14.9	21.5
518500 2006 BH_{56}	17.8	X	354.26681	38.60094	111.74065	4.61284	0.1501514	0.25667145	2.4521725	21	—	—
518501 2006 BF_{177}	17.9	X	288.46111	141.85869	87.56882	3.52586	0.1425539	0.25653344	2.4530519	21	—	—
518502 2006 BA_{230}	16.0	X	296.07057	45.75091	114.58018	11.11533	0.0312057	0.18500685	3.0503114	21	—	—
518503 2006 BM_{261}	18.1	X	308.90847	205.51031	7.93894	1.96117	0.1357365	0.25569138	2.4584346	21	—	—
518504 2006 DH_{71}	18.0	X	312.22591	49.15988	154.62870	1.79352	0.1340430	0.25356183	2.4721803	21	—	—
518505 2006 DW_{141}	18.2	X	304.98614	158.50860	43.52549	3.61437	0.1410626	0.25172260	2.4842077	21	—	—
518506 2006 DP_{219}	17.3	X	42.74417	58.54853	207.54663	4.89614	0.0313895	0.21441977	2.7645609	21	8 10.9	21.0
518507 2006 EE_{1}	19.8	X	276.77899	278.01700	154.22215	36.40505	0.2763335	0.74722860	1.2027270	21	—	—
518508 2006 EG_{76}	17.3	X	230.78660	216.29427	1.26853	12.71777	0.1913375	0.23898958	2.5716789	21	—	—
518509 2006 FZ_{51}	16.9	X	180.72015	322.82383	304.76145	5.05875	0.5031447	0.16452959	3.2984257	21	12 31.3	23.5
518510 2006 HG_{75}	17.9	X	258.84404	148.90433	101.95578	11.30573	0.1733568	0.24443650	2.5333314	21	—	—
518511 2006 HY_{154}	16.7	X	217.03178	59.12712	55.25848	9.18111	0.1020900	0.21716158	2.7412420	21	9 2.5	20.9
518512 2006 JN_{41}	17.4	X	234.24718	191.31750	103.12599	12.79741	0.1651164	0.24553443	2.5257738	21	1 26.1	21.5
518513 2006 JG_{82}	16.3	X	323.37599	69.99048	133.57324	13.23124	0.0232785	0.18227730	3.0806876	21	2 6.5	20.4
518514 2006 KO_{34}	18.2	X	235.49985	212.76653	75.37538	5.51989	0.2590595	0.24348045	2.5399587	21	1 17.8	22.6
518515 2006 KO_{94}	18.2	X	295.83064	34.22702	189.57439	2.99786	0.1776221	0.24687956	2.5165909	21	—	—
518516 2006 OE_{38}	17.3	X	193.72790	102.43385	211.62313	1.07143	0.1167839	0.22940321	2.6428330	21	1 13.4	21.4
518517 2006 QL_{168}	16.8	X	197.16282	305.30919	6.92636	11.69727	0.2016658	0.23151449	2.6267411	21	1 20.8	21.4
518518 2006 QZ_{187}	16.8	X	306.91090	116.59340	176.61827	1.03620	0.1510829	0.18250098	3.0781699	21	4 19.6	20.8
518519 2006 QC_{188}	16.8	X	226.77187	319.05772	332.93245	7.21016	0.1232403	0.23337384	2.6127706	21	1 19.4	20.9
518520 2006 QD_{188}	16.5	X	239.84039	101.61325	210.13703	1.94826	0.0379728	0.16981179	3.2296650	21	3 8.9	21.1
518521 2006 QF_{188}	17.0	X	34.55570	223.24579	178.53601	4.23664	0.1002374	0.21528962	2.7571093	21	—	—
518522 2006 RO_{17}	17.4	X	196.84374	146.67762	199.72725	14.41220	0.3187250	0.23481325	2.6020821	21	2 24.7	22.5
518523 Bryanshumaker	16.8	X	163.88841	186.49707	177.25537	8.48749	0.3268300	0.22775511	2.6555672	21	2 26.4	21.5
518524 2006 SZ_{11}	17.1	X	222.25461	79.21566	235.75902	4.70860	0.3334226	0.23605335	2.5929607	21	2 6.1	22.0
518525 2006 ST_{91}	17.5	X	234.70775	94.62464	200.39247	12.22340	0.2696179	0.23319999	2.6140689	21	1 22.6	22.4
518526 2006 ST_{110}	17.1	X	188.16098	303.47777	28.73594	13.04743	0.2731712	0.23043403	2.6349455	21	2 10.8	22.0
518527 2006 SU_{237}	17.1	X	29.33450	277.83772	182.46647	13.34535	0.1139379	0.22024409	2.7156046	21	—	—
518528 2006 SE_{285}	16.5	X	186.82782	129.92484	229.27263	27.84762	0.4065080	0.23268087	2.6179555	21	3 2.1	22.2
518529 2006 SE_{405}	16.7	X	302.81111	281.28560	229.10696	8.57929	0.1287106	0.21137118	2.7910794	21	—	—
518530 2006 SF_{416}	16.5	X	294.28320	338.36618	5.32524	9.32268	0.0911095	0.18331128	3.0690921	21	6 14.7	20.9
518531 2006 SH_{416}	16.6	X	312.30569	301.04637	38.03445	9.54831	0.0406747	0.18363940	3.0654352	21	7 12.9	20.9
518532 2006 TT_{31}	17.4	X	208.82059	277.95968	34.63263	13.48134	0.2796175	0.23039017	2.6352799	21	2 1.9	22.4
518533 2006 TR_{76}	16.9	X	177.60657	118.09776	236.33351	13.90059	0.2781488	0.22992144	2.6388603	21	2 17.9	21.8
518534 2006 TF_{82}	17.4	X	186.27685	81.70707	248.46754	4.41697	0.2633615	0.22812889	2.6526657	21	1 31.2	22.1
518535 2006 UH_{175}	17.1	X	223.87434	165.04632	187.77599	13.43132	0.1666485	0.23913711	2.5706211	21	3 28.3	21.1
518536 2006 UN_{240}	18.6	X	289.09539	287.46795	18.19775	4.01614	0.1528048	0.30887224	2.1674552	21	3 29.3	21.1
518537 2006 UO_{338}	17.3	X	180.41486	100.19210	237.10149	5.87187	0.2319233	0.22529333	2.6748770	21	2 2.3	22.0
518538 2006 UH_{363}	18.3	X	235.38592	57.15839	193.38174	3.10605	0.0554559	0.28582792	2.2824413	21	—	—
518539 2006 UJ_{363}	16.9	X	253.66665	56.86883	337.01288	0.32509	0.1984447	0.17999261	3.1067021	21	6 15.9	21.5
518540 2006 UL_{363}	17.0	X	343.14950	117.99357	203.33342	9.92688	0.1359774	0.18635770	3.0355531	21	7 24.8	20.8
518541 2006 VD_{59}	17.2	X	29.87123	246.85702	201.40432	3.87775	0.0369544	0.21279828	2.7785869	21	—	—
518542 2006 VA_{76}	18.5	X	260.29385	102.72206	252.52255	0.88365	0.2364213	0.31208827	2.1525393	21	4 23.6	21.8
518543 2006 WV_{28}	17.6	X	299.12309	346.75416	246.84571	6.81478	0.0564052	0.28958750	2.2626437	21	1 16.8	20.4
518544 2006 WO_{93}	17.1	X	192.42049	250.44866	68.26927	12.64777	0.2539437	0.22409060	2.6844395	21	1 26.3	22.0
518545 2006 WB_{208}	17.7	X	201.59352	146.29459	243.52902	2.95118	0.1484334	0.23370261	2.6103195	21	4 22.9	21.9
518546 2006 WC_{208}	16.3	X	251.44157	13.36259	84.72625	11.60520	0.0483467	0.18553474	3.0445228	21	9 28.2	20.8
518547 2006 WF_{208}	16.1	X	215.19437	216.48140	251.73557	11.10121	0.0621203	0.18078243	3.0976468	21	8 15.2	20.9
518548 2006 XF_{74}	16.5	X	204.26554	7.46929	115.38246	10.85703	0.0532636	0.17599738	3.1535417	21	8 29.2	21.2
518549 2006 YJ_{39}	16.7	X	154.28775	264.36628	87.72287	14.82865	0.2040059	0.22178340	2.7030248	21	1 31.7	21.1
518550 2006 YV_{56}	17.4	X	243.75913	291.92237	313.53375	6.26979	0.0844663	0.27273899	2.3548933	21	—	—
518551 2007 AH_{10}	18.1	X	41.20085	146.67494	115.56142	25.39478	0.0118921	0.37603077	1.9010219	21	8 13.6	19.9
518552 2007 BJ_{103}	15.9	X	328.11360	91.46824	304.90941	8.25142	0.0868900	0.18543425	3.0456226	21	10 9.6	19.9
518553 2007 DD_{28}	18.2	X	329.11888	145.42350	49.24676	2.96809	0.1597877	0.27301894	2.3532832	21	—	—
518554 2007 DZ_{43}	18.2	X	354.34985	6.43905	198.62630	4.15610	0.0714192	0.28142183	2.3062030	21	2 24.4	20.9
518555 2007 DV_{118}	17.7	X	77.77030	270.08761	26.27489	1.55602	0.0796234	0.24414778	2.5353282	21	11 17.7	21.1
518556 2007 ET_{130}	17.0	X	239.81787	8.17155	164.27842	1.36384	0.1343872	0.18346277	3.0674024	21	11 26.3	21.4
518557 2007 EC_{132}	18.1	X	302.42152	246.61378	2.14016	3.29190	0.2135837	0.27351942	2.3504117	21	1 25.9	21.6
518558 2007 EF_{172}	16.7	X	197.27079	76.10719	194.05897	10.02575	0.0671049	0.19005231	2.9960838	21	—	—
518559 2007 EA_{176}	16.5	X	246.79567	164.81459	8.86940	2.44537	0.1204712	0.18238684	3.0794540	21	12 6.9	20.8
518560 2007 EH_{196}	18.4	X	316.55016	197.07640	16.12738	2.64485	0.1598554	0.27019255	2.3696660	21	1 3.3	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518561 2007 EL_{226}	16.1	X	144.45173	240.62972	31.49568	4.92741	0.1128569	0.17841022	3.1250447	21	12 19.4	21.1
518562 2007 FV_{21}	18.1	X	312.88116	243.93736	345.38841	6.35741	0.0900265	0.27699012	2.3307366	21	1 29.9	21.0
518563 2007 GL_{2}	17.7	X	323.79084	357.20481	221.85237	6.78859	0.2195423	0.27216476	2.3582044	21	1 9.1	20.8
518564 2007 GP_{23}	17.8	X	323.77147	168.55180	42.99008	5.67934	0.1921055	0.26922795	2.3753227	21	1 5.8	21.0
518565 2007 GL_{62}	16.8	X	275.31122	192.40775	4.86574	6.02528	0.0787563	0.25893399	2.4378670	21	—	—
518566 2007 HD_{39}	18.0	X	356.12325	59.88373	115.87689	2.91014	0.1509437	0.27089980	2.3655398	21	1 9.1	20.3
518567 2007 HB_{55}	17.6	X	265.38154	122.43655	139.60440	6.66282	0.1279204	0.26611428	2.3938150	21	1 13.1	21.2
518568 2007 HO_{67}	18.1	X	276.62618	104.99527	196.31659	13.25523	0.3561558	0.27201338	2.3590793	21	2 19.4	22.4
518569 2007 HV_{71}	18.1	X	338.46998	9.93702	186.75355	2.89894	0.1336740	0.27029912	2.3690431	21	1 13.3	20.9
518570 2007 HJ_{72}	17.8	X	342.69221	346.00303	212.80482	4.13952	0.1370066	0.27162961	2.3613008	21	1 20.9	20.5
518571 2007 HL_{80}	17.2	X	228.54785	161.80808	63.37868	0.39355	0.1406481	0.18489331	3.0515600	21	—	—
518572 2007 HG_{99}	16.8	X	284.04572	326.36756	174.28670	10.68249	0.0571083	0.18649371	3.0340769	21	12 23.9	21.0
518573 2007 HO_{99}	17.1	X	151.75173	313.25026	223.56890	13.20544	0.0953684	0.22769258	2.6560534	21	9 3.4	21.3
518574 2007 HP_{99}	16.3	X	72.68866	176.49604	79.08741	9.28646	0.0442406	0.22891557	2.6465849	21	9 17.4	20.0
518575 2007 JP_{46}	17.2	X	183.36970	333.92520	231.42273	9.96489	0.0668644	0.24002105	2.5643059	21	11 20.2	20.9
518576 2007 JR_{46}	16.7	X	36.18185	151.97651	108.50219	6.51233	0.0201252	0.21913191	2.7247854	21	7 26.2	20.1
518577 2007 KP_{2}	15.7	X	194.21474	248.80813	319.53154	24.70647	0.2900783	0.17662829	3.1460277	21	11 2.9	21.7
518578 2007 LM_{22}	16.1	X	122.13017	247.07995	90.76500	10.48620	0.0959873	0.17973153	3.1097098	21	—	—
518579 2007 LT_{36}	16.1	X	100.86127	139.15821	210.49618	27.40367	0.1754948	0.17512765	3.1639739	21	—	—
518580 2007 MP	16.5	X	244.45490	349.29138	208.41570	8.61510	0.1473941	0.18105935	3.0944876	21	12 28.4	21.0
518581 2007 PB_{51}	17.0	X	210.67563	49.28449	338.23795	9.56468	0.0153969	0.19280881	2.9674595	21	5 2.8	21.4
518582 2007 QD_{18}	16.1	X	265.12659	150.70862	150.80884	9.35013	0.0722718	0.18935456	3.0034394	21	3 21.8	20.5
518583 2007 TO_{455}	16.7	X	209.28335	209.12840	199.31862	10.04779	0.0385538	0.18948124	3.0021006	21	5 31.9	21.2
518584 2007 TR_{455}	16.7	X	53.51518	186.08557	113.79245	4.65505	0.2071161	0.21092605	2.7950049	21	11 7.5	20.5
518585 2007 TT_{455}	16.3	X	126.36774	92.45604	359.93886	9.33527	0.0615417	0.18161318	3.0881933	21	4 19.1	20.8
518586 2007 TW_{455}	17.3	X	303.80038	344.54680	36.59362	2.48708	0.0808228	0.20246711	2.8723215	21	8 21.3	21.0
518587 2007 TY_{455}	17.8	X	182.43585	53.44383	43.86861	7.21446	0.0755769	0.26405020	2.4062738	21	6 30.4	21.2
518588 2007 TZ_{455}	16.4	X	280.73210	290.28381	83.90388	10.76484	0.1100629	0.19400928	2.9552057	21	7 4.2	20.5
518589 2007 UJ_{143}	15.6	X	226.92429	88.73997	239.50939	9.39435	0.0988485	0.17892529	3.1190445	21	3 6.4	20.7
518590 2007 VS_{79}	17.1	X	332.19450	260.85730	238.66780	6.65912	0.1857907	0.22275230	2.6951809	21	—	—
518591 2007 VB_{107}	17.6	X	299.32316	279.19446	235.99079	3.58821	0.2449054	0.21907975	2.7252178	21	—	—
518592 2007 VQ_{338}	17.0	X	196.04766	86.74309	351.69483	2.88833	0.1762633	0.18653124	3.0336700	21	6 19.1	22.0
518593 2007 VR_{338}	16.6	X	208.26262	114.09153	256.74438	8.37901	0.0996522	0.17714293	3.1399314	21	4 8.8	21.6
518594 2007 VS_{338}	17.4	X	55.89417	282.78522	63.74091	7.97725	0.0883696	0.28614363	2.2807622	21	—	—
518595 2007 VT_{338}	17.1	X	118.82193	208.17461	74.95590	6.19089	0.1310556	0.21778129	2.7360393	21	12 15.1	21.3
518596 2007 VW_{338}	17.3	X	213.30169	202.58589	97.59394	3.38798	0.0781447	0.23603188	2.5931180	21	1 14.4	21.2
518597 2007 VB_{339}	16.4	X	139.05816	5.87437	38.49353	2.67045	0.0997713	0.17036265	3.2226993	21	3 15.2	21.3
518598 2007 VC_{339}	16.5	X	358.41989	44.97163	240.59000	9.87502	0.0529178	0.18967755	3.0000288	21	7 4.8	20.6
518599 2007 VH_{339}	16.3	X	355.61012	350.19155	251.94408	10.12928	0.0681317	0.17931309	3.1145458	21	5 3.7	20.4
518600 2007 VJ_{339}	17.0	X	247.48818	182.99883	79.64548	3.79014	0.1493305	0.23503949	2.6004120	21	1 1.3	21.1
518601 2007 VM_{339}	16.8	X	206.01004	95.75880	7.24649	4.23540	0.2153096	0.18651016	3.0338985	21	7 27.3	21.9
518602 2007 VO_{339}	16.8	X	71.91817	260.43194	55.37461	5.93419	0.0744051	0.21049652	2.7988059	21	11 28.8	20.8
518603 2007 XP_{60}	17.3	X	181.32820	312.20504	327.81564	4.60855	0.0233131	0.21762647	2.7373368	21	—	—
518604 2007 YU_{29}	17.3	X	329.25756	17.63745	90.20057	12.66177	0.3270126	0.21544309	2.7557998	21	—	—
518605 2007 YO_{75}	16.9	X	301.81510	324.49194	93.73081	7.16051	0.0656447	0.19785649	2.9167723	21	10 10.7	20.8
518606 2007 YQ_{75}	17.6	X	182.75202	249.09214	300.04255	5.87605	0.0721562	0.26931556	2.3748076	21	10 30.8	21.0
518607 2007 YR_{75}	17.0	X	195.11970	2.98506	91.90142	2.21557	0.1449323	0.18202257	3.0835611	21	7 9.3	21.9
518608 2007 YT_{75}	17.0	X	26.08590	87.73285	120.69664	15.89598	0.0509344	0.23994544	2.5648445	21	5 7.6	20.5
518609 2008 AC_{56}	17.1	X	241.99353	347.83554	178.24176	1.93951	0.0121695	0.20526312	2.8461782	21	12 11.8	21.1
518610 2008 AD_{86}	17.2	X	23.68448	332.59084	100.80341	4.34404	0.0504314	0.21417139	2.7666979	21	—	—
518611 2008 AG_{103}	17.1	X	350.27895	354.39692	108.74434	11.75954	0.2379012	0.21654861	2.7464126	21	—	—
518612 2008 AA_{117}	16.8	X	103.33392	83.56327	300.03736	5.37097	0.0574012	0.22349572	2.6892009	21	—	—
518613 2008 AV_{138}	15.6	X	145.21227	304.89072	290.72441	2.00481	0.0513705	0.12641532	3.9319040	21	10 30.4	21.4
518614 2008 AZ_{138}	16.6	X	273.22222	39.67612	319.43786	10.21769	0.1709490	0.18153018	3.0891345	21	5 25.9	21.4
518615 2008 AA_{139}	16.0	X	33.14714	140.83930	137.89017	10.81093	0.0645505	0.17995628	3.1071202	21	8 18.4	20.0
518616 2008 BV_{54}	16.6	X	148.16146	131.83892	132.72513	2.95350	0.0181787	0.20452960	2.8529792	21	12 18.9	20.7
518617 2008 CO_{23}	18.5	X	25.12837	209.82310	338.55487	2.79350	0.1040105	0.30595359	2.1812177	21	3 18.7	20.1
518618 2008 CE_{218}	17.4	X	347.04643	104.19818	150.79333	9.76597	0.1496522	0.23533243	2.5982535	21	4 29.8	20.3
518619 2008 CH_{218}	16.7	X	184.95462	138.71026	89.40455	2.00467	0.0973880	0.19888209	2.9067361	21	12 10.8	21.2
518620 2008 CJ_{218}	16.2	X	203.77777	131.46965	345.89894	9.36659	0.0344025	0.18139489	3.0906703	21	8 22.3	20.7
518621 2008 CK_{218}	16.6	X	216.22031	161.25256	329.64007	10.38744	0.1253160	0.18820405	3.0156672	21	9 11.1	21.4
518622 2008 CO_{218}	18.0	X	242.63971	181.51730	321.13453	2.60337	0.1109423	0.27017379	2.3697757	21	11 8.4	21.0
518623 2008 CQ_{218}	16.7	X	44.02293	86.08785	186.14313	2.68181	0.0535409	0.17611258	3.1521664	21	8 22.5	21.0
518624 2008 DG_{90}	16.9	X	187.08230	88.07403	5.62988	16.45609	0.1293451	0.17213427	3.2005491	21	7 2.2	22.3
518625 2008 ES_{171}	18.0	X	151.34761	30.97234	264.52325	2.21213	0.0706783	0.27429893	2.3459566	21	—	—
518626 2008 ET_{171}	17.0	X	248.95451	25.92042	346.59108	6.89089	0.1109493	0.23783447	2.5799989	21	5 20.0	20.8
518627 2008 EU_{171}	17.2	X	11.67192	329.47515	296.26556	2.37126	0.1811208	0.23683088	2.5872824	21	7 4.9	19.5
518628 2008 FU_{138}	18.2	X	42.44925	136.64921	17.41017	4.23487	0.0455734	0.29702356	2.2247204	21	3 1.5	20.4
518629 2008 FW_{138}	17.6	X	183.60464	9.60605	194.82261	6.52604	0.0700610	0.25928600	2.4356600	21	11 22.9	21.0
518630 2008 GP_{70}	17.9	X	18.59260	90.55753	91.29018	8.53046	0.1026324	0.29512792	2.2342367	21	3 3.7	20.1
518631 2008 GB_{79}	18.0	X	299.87170	236.90791	51.11355	8.38826	0.1620211	0.29684496	2.2256127	21	3 22.6	20.8
518632 2008 GJ_{119}	16.2	X	170.90814	194.58397	117.74864	9.33009	0.1505438	0.19963148	2.8994572	21	—	—
518633 2008 GY_{148}	16.9	X	147.57899	189.84008	44.74728	1.51971	0.1299601	0.18175585	3.0865770	21	11 9.9	21.9
518634 2008 GB_{149}	18.3	X	164.54795	180.09712	62.90490	2.85439	0.1234653	0.26236940	2.4165397	21	12 17.0	21.9
518635 2008 HO_{3}	18.1	X	202.98542	128.89034	206.06788	14.07004	0.6505747	0.19773039	2.9180121	21	2 19.2	24.8
518636 2008 HJ_{71}	17.2	X	83.84951	230.96999	96.39519	7.99203	0.1071871	0.26184020	2.4197946	21	—	—
518637 2008 JQ_{4}	18.1	X	349.28815	70.48285	138.36658	1.76153	0.1060625	0.29677902	2.2259424	21	2 15.1	20.0
518638 2008 JP_{14}	19.3	X	42.47086	206.40434	129.05569	10.71440	0.6188927	0.39038501	1.8541319	21	—	—
518639 2008 JC_{42}	17.5	X	20.34307	202.20375	60.03016	10.62031	0.0602130	0.23545699	2.5973372	21	7 8.9	20.7
518640 2008 KZ_{5}	20.1	X	48.00317	194.34213	142.60626	8.36884	0.4541126	0.39417068	1.8422413	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518641 2008 MY_3	17.8	X	282.50849	133.01825	124.58834	7.67367	0.0915676	0.27907373	2.3191210	21	1 27.6	20.7
518642 2008 OY_{25}	17.0	X	178.11358	114.93598	268.81768	1.79212	0.1243370	0.19914168	2.9042095	21	3 26.5	21.7
518643 2008 OZ_{25}	16.6	X	112.88477	198.40468	158.44674	10.81961	0.0932081	0.18134061	3.0912871	21	—	—
518644 2008 PO_7	18.4	X	276.09774	127.72057	182.79935	5.25048	0.2662165	0.28699523	2.2762481	21	3 10.5	21.9
518645 2008 PL_{12}	18.8	X	279.65060	186.52729	125.79661	0.72311	0.2841227	0.28757701	2.2731771	21	3 15.1	22.4
518646 2008 QD_1	19.0	X	290.25469	261.12097	72.69759	6.91341	0.4464710	0.29143527	2.2530698	21	4 6.9	22.7
518647 2008 QG_{46}	16.0	X	147.77291	149.97279	167.20460	23.47534	0.1694666	0.18047251	3.1011921	21	—	—
518648 2008 RQ_{19}	17.3	X	248.42428	190.11681	230.16667	2.58407	0.1854740	0.21632678	2.7482898	21	7 14.6	21.6
518649 2008 RZ_{61}	16.3	X	142.89502	153.07888	169.66336	17.74350	0.2375288	0.18102946	3.0948282	21	—	—
518650 2008 RO_{62}	16.8	X	145.09081	260.32610	58.88860	1.93526	0.1715639	0.17921121	3.1157260	21	—	—
518651 2008 RU_{143}	18.3	X	271.46793	97.25582	196.60310	5.10652	0.1897820	0.27961540	2.3161250	21	2 19.8	21.8
518652 2008 RB_{148}	17.1	X	258.08336	167.28889	183.00860	1.85560	0.0780779	0.20650049	2.8347972	21	5 10.0	21.1
518653 2008 RE_{148}	17.1	X	311.17651	331.50009	330.82134	3.69927	0.0532532	0.21006097	2.8026732	21	5 18.2	20.7
518654 2008 RG_{148}	16.8	X	337.64034	245.00146	29.32700	5.10303	0.1195896	0.21071683	2.7968546	21	5 12.2	20.1
518655 2008 RK_{148}	16.6	X	173.30084	307.41138	20.87181	9.13765	0.1115056	0.18464394	3.0543069	21	1 20.1	21.4
518656 2008 RM_{148}	16.4	X	134.17013	82.18541	318.22052	10.00056	0.0483569	0.19132890	2.9827418	21	2 21.6	20.7
518657 2008 RU_{148}	17.2	X	215.66903	226.73888	188.59524	3.98631	0.0993125	0.21134402	2.7913186	21	6 12.2	21.5
518658 2008 SF_{37}	16.8	X	139.27906	140.19590	180.79457	2.20948	0.1720850	0.17579356	3.1559788	21	—	—
518659 2008 SF_{141}	15.9	X	156.88544	51.32729	251.63151	12.15937	0.2329561	0.17851682	3.1238005	21	—	—
518660 2008 SK_{239}	16.1	X	202.79390	231.84394	17.47773	13.10684	0.2981184	0.17966675	3.1104573	21	—	—
518661 2008 ST_{252}	16.1	X	97.22062	154.49999	195.93462	26.45685	0.1376201	0.17058498	3.2198986	21	—	—
518662 2008 SK_{268}	17.1	X	155.20433	92.40279	217.27267	8.85026	0.2310541	0.17703976	3.1411511	21	—	—
518663 2008 SU_{312}	17.0	X	319.02107	199.54938	154.44282	3.36239	0.0361033	0.21718439	2.7410502	21	8 11.2	20.6
518664 2008 SV_{312}	17.0	X	276.28524	191.53693	217.28126	5.06830	0.0618661	0.21761585	2.7374258	21	8 19.5	20.7
518665 2008 SY_{312}	17.9	X	1.22626	5.16606	39.70691	4.46971	0.1091070	0.23756621	2.5819407	21	12 29.8	20.9
518666 2008 SC_{313}	16.6	X	82.49292	305.75163	126.57723	1.99577	0.1661970	0.17991515	3.1075936	21	2 16.7	20.4
518667 2008 SD_{313}	16.9	X	359.99474	50.14184	284.15578	4.46530	0.0970154	0.22187630	2.7022702	21	9 14.7	20.0
518668 2008 SE_{313}	16.6	X	87.05374	88.82328	0.99216	8.68869	0.1222585	0.18377853	3.0638879	21	3 10.5	20.6
518669 2008 SF_{313}	17.2	X	61.10337	309.22465	10.56347	12.57922	0.1024884	0.23226105	2.6211093	21	11 25.4	21.0
518670 2008 SG_{313}	17.2	X	182.08463	13.41130	205.15301	3.58333	0.1295705	0.23822260	2.5771958	21	11 30.7	21.2
518671 2008 SJ_{313}	16.9	X	34.36565	166.79409	315.05640	3.22168	0.1914597	0.17693375	3.1424058	21	2 1.7	20.2
518672 2008 TD_{181}	16.1	X	134.85810	275.82477	37.55871	25.56878	0.2010961	0.17289425	3.1911632	21	—	—
518673 2008 TN_{190}	17.8	X	8.86490	330.52570	166.95421	6.33698	0.0635890	0.25854287	2.4403250	21	—	—
518674 2008 TS_{192}	17.2	X	139.99475	202.52093	115.88371	3.82058	0.0357828	0.24574970	2.5242985	21	—	—
518675 2008 TW_{192}	17.3	X	331.58311	10.56616	292.08107	2.85423	0.0806872	0.20990491	2.8040623	21	6 16.0	20.6
518676 2008 UY_{46}	17.9	X	241.36394	308.11318	23.47575	5.99326	0.2235994	0.27363159	2.3497693	21	3 13.8	21.8
518677 2008 UK_{76}	17.7	X	114.50909	262.15751	237.36594	19.40127	0.0833267	0.35180807	1.9873095	21	6 1.9	19.7
518678 2008 UZ_{94}	17.4	X	318.47395	159.65405	248.25009	30.24427	0.5720019	0.30404403	2.1903410	21	7 16.9	19.7
518679 2008 UR_{110}	18.0	X	104.67042	313.72350	226.78492	19.92192	0.0673002	0.36282361	1.9468793	21	7 13.7	20.6
518680 2008 UV_{154}	17.9	X	272.03095	236.31444	60.55168	2.18566	0.1886601	0.27533047	2.3400934	21	2 27.5	21.3
518681 2008 UJ_{176}	17.8	X	238.45638	332.27389	356.32192	2.27760	0.2313726	0.27489912	2.3425407	21	3 5.7	21.8
518682 2008 UH_{199}	18.4	X	271.46121	160.88522	219.81385	21.22217	0.0926783	0.36636243	1.9343219	21	6 28.2	20.9
518683 2008 UQ_{374}	16.4	X	47.96226	302.60660	35.64297	12.94594	0.1636726	0.23125275	2.6287227	21	12 12.8	20.1
518684 2008 UR_{374}	16.9	X	301.08354	348.18389	54.43993	3.80713	0.0880859	0.21782979	2.7356332	21	9 16.8	20.2
518685 2008 UU_{374}	17.3	X	289.34149	213.98724	280.87406	7.53558	0.1315571	0.23339217	2.6126338	21	12 28.8	20.1
518686 2008 UA_{375}	17.1	X	303.40131	235.95124	253.59029	14.66775	0.1344996	0.23446226	2.6046782	21	—	—
518687 2008 UC_{375}	15.7	X	48.79521	195.60787	264.55969	8.56966	0.0654767	0.17526125	3.1623659	21	1 21.5	19.9
518688 2008 VO_{82}	17.2	X	276.53973	266.46603	69.38486	2.98773	0.0109885	0.20012021	2.8947346	21	5 24.0	21.2
518689 2008 WH_{13}	17.7	X	204.72931	342.56358	54.32836	23.95184	0.0529277	0.35427616	1.9780690	21	5 2.7	20.0
518690 2008 WO_{27}	17.5	X	261.24908	188.26783	51.37540	7.69081	0.0456122	0.25303661	2.4756000	21	—	—
518691 2008 WP_{143}	17.7	X	303.36178	51.57576	74.59987	3.54046	0.0755822	0.23239590	2.6200952	21	—	—
518692 2008 WT_{143}	17.4	X	274.30573	266.66944	128.65401	3.08809	0.1103059	0.21119509	2.7926307	21	7 23.8	21.2
518693 2008 WY_{143}	16.3	X	191.61873	271.56319	92.44093	10.56709	0.0493302	0.17917005	3.1162033	21	3 22.9	21.1
518694 2008 XJ_{57}	16.4	X	269.36498	126.23254	246.10086	9.82645	0.0082467	0.20118015	2.8845581	21	7 1.1	20.4
518695 2008 YM_{63}	17.9	X	324.20445	1.92539	147.15851	4.90226	0.2151743	0.23361200	2.6109944	21	—	—
518696 2008 YT_{101}	15.3	X	86.20562	208.32327	123.88344	12.24991	0.0865385	0.14680435	3.5588534	21	12 24.9	20.6
518697 2008 YD_{140}	17.2	X	299.33284	49.93256	117.67461	15.35539	0.0592661	0.23448436	2.6045146	21	—	—
518698 2008 YK_{175}	16.8	X	134.11443	176.51152	313.09258	3.24700	0.1273028	0.19011160	2.9954608	21	6 22.8	21.4
518699 2008 YL_{175}	17.5	X	192.74765	344.88265	260.20125	5.31366	0.0239011	0.22901292	2.6458348	21	—	—
518700 2008 YM_{175}	16.3	X	84.44858	258.25769	282.41466	8.60642	0.0494414	0.18876159	3.0097260	21	6 19.3	20.4
518701 2009 AD_{41}	17.2	X	190.04932	242.10189	126.87499	13.12632	0.2193744	0.25706994	2.4496377	21	3 22.3	21.5
518702 2009 AA_{52}	16.3	X	224.23663	211.78206	125.07729	17.43016	0.0387333	0.17754456	3.1351943	21	3 27.4	21.2
518703 2009 AB_{52}	17.8	X	286.33363	17.55608	130.27049	12.12783	0.1401922	0.22632542	2.6667389	21	—	—
518704 2009 AF_{52}	16.2	X	168.69100	132.13283	282.65257	9.93456	0.0708397	0.18136926	3.0909614	21	4 19.7	21.0
518705 2009 AK_{52}	16.6	X	326.63422	130.67657	103.00620	2.57755	0.0807747	0.17272479	3.1932500	21	3 14.8	20.9
518706 2009 AM_{52}	17.1	X	38.79844	264.41028	110.96400	7.15912	0.0551792	0.22318371	2.6917066	21	—	—
518707 2009 BJ_{25}	17.5	X	307.33307	160.92384	12.96353	5.28527	0.1391523	0.23079602	2.6321896	21	—	—
518708 2009 BY_{64}	16.6	X	250.34728	65.64802	119.35629	7.44266	0.0721646	0.22289082	2.6940641	21	—	—
518709 2009 BT_{122}	17.7	X	316.91291	32.14005	143.42476	5.55018	0.0936226	0.23423388	2.6063710	21	—	—
518710 2009 BV_{175}	17.4	X	356.86611	315.50770	169.03801	11.87832	0.1430140	0.23045762	2.6347657	21	—	—
518711 2009 BE_{184}	16.9	X	328.65584	235.14388	263.79284	5.18430	0.2602109	0.23023669	2.6364510	21	—	—
518712 2009 BR_{192}	16.0	X	202.23939	224.46542	148.32036	10.46237	0.0896367	0.17683326	3.1435962	21	4 11.7	20.9
518713 2009 CV_{65}	16.9	X	326.14753	202.98151	304.81960	4.98754	0.0908532	0.23274058	2.6175077	21	—	—
518714 2009 CK_{67}	16.8	X	204.38303	23.02004	323.92888	1.09138	0.0156288	0.17140979	3.2095610	21	3 11.9	21.4
518715 2009 CL_{67}	18.1	X	253.25157	186.75972	1.66994	3.80127	0.0542337	0.30227173	2.1988943	21	—	—
518716 2009 DA_8	16.5	X	5.03841	311.37760	173.10009	11.02774	0.1172964	0.23310217	2.6148002	21	—	—
518717 2009 DH_{32}	17.4	X	296.44136	131.98564	8.71661	3.01880	0.4354055	0.22324908	2.6911811	21	11 29.9	19.3
518718 2009 DP_{44}	17.2	X	285.98240	43.75659	131.12047	17.83647	0.1069009	0.22684851	2.6626378	21	—	—
518719 2009 DX_{56}	17.2	X	340.57949	328.58783	153.57807	14.11823	0.1989688	0.22853731	2.6495044	21	—	—
518720 2009 DG_{60}	17.0	X	264.33034	199.28084	23.68664	6.87611	0.1425180	0.22765552	2.6563416	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518721 2009 DA_{90}	17.7	X	324.34765	22.06323	140.19383	12.16907	0.1095564	0.23545209	2.5973732	21	—	—
518722 2009 DH_{145}	16.4	X	135.71766	333.67865	157.31771	12.53442	0.0484723	0.18547551	3.0451709	21	6 19.8	21.0
518723 2009 DL_{145}	16.1	X	47.22566	201.12608	12.26715	16.83371	0.1446957	0.17525180	3.1624795	21	6 23.2	20.4
518724 2009 DM_{145}	17.0	X	185.80640	351.91410	22.54757	6.22644	0.1289306	0.24392238	2.5368899	21	3 20.6	20.8
518725 2009 DN_{145}	16.6	X	9.19388	146.95437	81.89811	2.09394	0.1080262	0.17599792	3.1535353	21	5 8.8	20.3
518726 2009 EO_{22}	17.0	X	243.34638	197.58338	23.92942	13.14764	0.0896081	0.21980127	2.7192507	21	—	—
518727 2009 FL_{6}	17.2	X	217.55212	187.90934	92.89161	14.55673	0.1652818	0.22372818	2.6873378	21	—	—
518728 2009 FL_{70}	16.9	X	326.62315	66.90361	81.12056	6.52694	0.0712481	0.22243548	2.6977395	21	—	—
518729 2009 FC_{80}	17.4	X	253.40028	33.75659	197.97132	5.47848	0.1329146	0.22335632	2.6903196	21	—	—
518730 2009 FE_{80}	17.5	X	301.69943	104.03435	27.27549	8.28861	0.1594096	0.21716875	2.7411817	21	—	—
518731 2009 FF_{80}	17.5	X	120.04699	26.19862	175.13190	2.98996	0.1215109	0.26665884	2.3905549	21	9 10.3	21.0
518732 2009 GM_{2}	16.6	X	227.57516	133.10989	79.54945	10.73408	0.1396975	0.21360753	2.7715647	21	—	—
518733 2009 HA_{4}	17.2	X	339.16405	321.64188	162.84282	11.70348	0.0320898	0.22188296	2.7022161	21	—	—
518734 2009 HJ_{4}	17.0	X	218.32872	249.36958	37.92526	16.22021	0.1905440	0.22565711	2.6720015	21	1 7.5	21.8
518735 2009 JL_{1}	21.1	X	60.76356	289.59627	69.52719	11.51267	0.1706582	0.76899870	1.1799193	21	—	—
518736 2009 MC_{7}	16.8	X	253.35088	144.46234	146.37335	9.35745	0.2332472	0.22114698	2.7082082	21	2 5.7	21.3
518737 2009 OO_{9}	18.8	X	251.50027	322.18976	134.97766	13.60069	0.8119804	0.47608687	1.6243461	21	7 14.1	22.4
518738 2009 PL_{15}	16.8	X	257.68361	325.11919	334.40244	8.21099	0.2817445	0.21995811	2.7179579	21	2 17.2	21.4
518739 2009 PT_{21}	18.0	X	87.82323	142.13828	163.21599	7.36104	0.0871888	0.26198262	2.4189175	21	12 15.6	21.5
518740 2009 PV_{21}	16.9	X	264.84587	322.03510	355.48548	9.00184	0.1142849	0.22151838	2.7051802	21	3 29.5	20.8
518741 2009 QZ_{65}	16.5	X	57.81638	237.39451	101.22126	2.40145	0.1842588	0.17885493	3.1198624	21	12 19.2	21.0
518742 2009 QC_{66}	16.3	X	41.86378	338.61999	5.45487	10.73708	0.0724410	0.17409093	3.1765226	21	11 17.1	20.8
518743 2009 QG_{66}	17.0	X	117.83212	229.26730	173.62192	2.01786	0.0684879	0.20353907	2.8622278	21	2 6.9	20.8
518744 2009 RP_{71}	18.3	X	278.17109	120.85831	220.90729	1.69306	0.1842863	0.31122659	2.1565105	21	4 30.7	21.0
518745 2009 RX_{76}	17.2	X	44.09034	256.96818	16.95857	11.05167	0.0743115	0.23904716	2.5712659	21	9 6.9	20.4
518746 2009 SY_{73}	16.8	X	183.07692	204.67169	45.76430	11.86880	0.0683953	0.18051710	3.1006815	21	—	—
518747 2009 SR_{97}	16.5	X	252.90052	169.36335	356.27614	5.14529	0.1004347	0.18243454	3.0789171	21	12 6.9	20.8
518748 2009 SQ_{162}	17.0	X	167.77328	114.99759	170.16959	3.60348	0.1004324	0.19053996	2.9909696	21	—	—
518749 2009 SB_{164}	16.5	X	148.54708	259.68668	40.44003	10.23290	0.1227597	0.18436512	3.0573855	21	—	—
518750 2009 SG_{238}	15.7	X	127.85509	248.58842	55.57610	10.76364	0.0761584	0.18359586	3.0659198	21	—	—
518751 2009 SQ_{332}	15.3	X	59.49999	125.01692	239.10025	21.41579	0.1910538	0.17815764	3.1279976	21	—	—
518752 2009 SU_{371}	17.8	X	301.69006	357.26656	54.52855	5.04581	0.1199809	0.24558520	2.5254257	21	9 30.7	20.6
518753 2009 SV_{371}	18.2	X	282.74779	65.63219	24.14674	14.19120	0.1467173	0.24671143	2.5177341	21	10 17.0	20.9
518754 2009 SW_{371}	15.9	X	104.33806	285.74586	33.37844	15.99701	0.0790560	0.18190457	3.0848944	21	—	—
518755 2009 SZ_{371}	16.4	X	40.59500	326.81167	54.23595	10.56128	0.0567202	0.17734304	3.1375689	21	12 31.7	20.9
518756 2009 TC_{2}	16.0	X	158.41475	25.67108	249.46334	7.98755	0.1143168	0.18631819	3.0359822	21	—	—
518757 2009 TL_{5}	16.5	X	152.36300	89.40584	206.62504	9.43140	0.1672239	0.18893067	3.0079301	21	—	—
518758 2009 TJ_{46}	16.3	X	103.30358	295.82264	34.50480	15.56795	0.1626354	0.18320405	3.0702896	21	—	—
518759 2009 TX_{49}	17.7	X	231.05460	64.88629	42.33762	4.61239	0.2005716	0.23523526	2.5989690	21	8 27.8	21.7
518760 2009 UP_{60}	16.6	X	197.10490	197.96377	59.26248	8.04850	0.0812174	0.18757654	3.0223891	21	—	—
518761 2009 UH_{90}	15.7	X	359.74650	195.44610	236.67947	16.42855	0.2055910	0.17545807	3.1600005	21	—	—
518762 2009 UK_{100}	16.2	X	77.76376	286.62675	66.27375	11.50204	0.0691829	0.17595250	3.1540779	21	—	—
518763 2009 UN_{159}	16.1	X	168.82576	63.35683	229.67093	19.99315	0.0924550	0.18381112	3.0635257	21	—	—
518764 2009 UG_{160}	16.5	X	275.86800	211.36800	61.94654	12.86215	0.0427241	0.19870989	2.9084151	21	3 7.1	20.9
518765 2009 UM_{160}	17.0	X	342.47163	259.35989	31.97503	6.54084	0.0305732	0.22329178	2.6908380	21	6 20.5	20.5
518766 2009 UP_{160}	17.3	X	321.06258	282.75708	63.63650	4.16279	0.0733558	0.23213449	2.6220618	21	8 2.6	20.5
518767 2009 UQ_{160}	17.1	X	235.76471	5.01440	350.07175	5.93828	0.0457984	0.21198100	2.7857240	21	4 20.1	21.1
518768 2009 UR_{160}	17.0	X	278.73149	22.47163	359.28681	8.80905	0.0836357	0.22811968	2.6527371	21	7 18.5	20.6
518769 2009 VX_{58}	18.2	X	252.22839	264.35919	104.91450	6.34988	0.2156547	0.30715582	2.1755224	21	5 9.3	21.4
518770 2009 VB_{119}	16.3	X	119.67966	46.72181	265.35877	8.34773	0.0860074	0.17380640	3.1799884	21	—	—
518771 2009 WL_{1}	18.5	X	332.78684	323.01225	64.99654	29.01627	0.3348179	0.41279586	1.7864019	21	—	—
518772 2009 WG_{173}	17.8	X	123.30949	209.71577	225.32803	5.68392	0.0739078	0.28432887	2.2904567	21	3 13.4	20.7
518773 2009 WW_{207}	16.2	X	123.65664	263.26501	57.22974	11.54051	0.1232543	0.17709721	3.1404719	21	—	—
518774 2009 WL_{237}	16.4	X	129.51373	285.10658	56.61444	15.72682	0.2006443	0.18551461	3.0447430	21	—	—
518775 2009 WV_{253}	17.3	X	333.41388	181.42275	51.24951	6.76458	0.0363929	0.28692546	2.2766171	21	3 13.1	20.0
518776 2009 WT_{270}	17.6	X	226.84909	165.21657	246.35714	3.48283	0.1165585	0.22182154	2.7027149	21	6 17.6	21.6
518777 2009 WU_{270}	16.5	X	180.27943	266.66295	248.72339	13.69253	0.0589841	0.23200936	2.6230046	21	9 5.9	20.6
518778 2010 AW_{130}	15.7	X	244.52333	137.77040	171.40212	18.96782	0.1145268	0.17100064	3.2146786	21	3 4.7	20.8
518779 2010 AN_{133}	16.2	X	266.99887	28.81352	255.07745	11.89602	0.1473375	0.20955520	2.8071810	21	2 12.7	20.8
518780 2010 AH_{137}	17.1	X	341.03766	265.85181	207.03441	11.92398	0.0427356	0.23839914	2.5759233	21	—	—
518781 2010 AL_{138}	15.7	X	255.40914	16.19899	294.57373	13.99314	0.1431814	0.17339593	3.1850050	21	3 8.3	20.9
518782 2010 AB_{141}	16.7	X	190.09522	247.56559	133.87560	9.99234	0.0975325	0.19259617	2.9696432	21	4 9.2	21.4
518783 2010 AE_{141}	16.9	X	271.04555	329.67599	129.37341	8.28459	0.0678452	0.23302607	2.6153694	21	10 25.6	20.3
518784 2010 BK_{5}	17.1	X	230.07528	294.89053	112.08271	4.66186	0.0954454	0.21467329	2.7623839	21	6 17.4	21.1
518785 2010 BS_{11}	16.7	X	21.25804	317.05889	198.58180	17.66929	0.0873118	0.17117067	3.2125494	21	2 18.5	21.1
518786 2010 BV_{20}	16.5	X	77.56370	3.78404	239.42400	15.78416	0.1781628	0.20130313	2.8833832	21	9 12.0	21.0
518787 2010 BP_{24}	15.7	X	228.72516	324.55638	148.41600	6.82280	0.1088189	0.15288551	3.4638454	21	9 4.4	20.8
518788 2010 BL_{44}	16.0	X	23.80447	317.85495	88.52605	9.38123	0.1285913	0.17664777	3.1457964	21	—	—
518789 2010 BH_{53}	16.4	X	86.32361	206.54623	96.77803	8.28809	0.1275819	0.21709729	2.7417833	21	12 7.8	20.5
518790 2010 BO_{53}	16.6	X	53.24648	233.23082	174.97676	22.35271	0.0944737	0.18273879	3.0754987	21	—	—
518791 2010 BD_{56}	17.7	X	294.84339	256.37304	150.40207	9.12369	0.1584361	0.23950769	2.5679688	21	9 3.3	20.4
518792 2010 BQ_{68}	16.6	X	147.71715	160.89510	332.34175	13.72057	0.0520489	0.22354513	2.6888046	21	7 9.2	20.6
518793 2010 BY_{73}	17.1	X	286.08198	293.48483	216.46333	12.07844	0.1952112	0.23509700	2.5999879	21	—	—
518794 2010 BF_{76}	16.7	X	208.13829	140.81563	4.90018	7.77340	0.1394504	0.21387349	2.7692665	21	9 24.6	20.8
518795 2010 BH_{84}	16.6	X	180.79253	202.20427	162.49596	12.89186	0.0800729	0.20385195	2.8592983	21	3 4.8	20.9
518796 2010 BJ_{84}	16.6	X	135.88120	205.15511	161.99879	3.61739	0.0434171	0.19327347	2.9627014	21	1 14.5	20.9
518797 2010 BP_{88}	16.4	X	78.55079	166.41699	185.61001	12.99877	0.2002729	0.17917685	3.1161244	21	—	—
518798 2010 BU_{91}	16.0	X	269.66901	323.84887	140.61579	11.99626	0.1196846	0.16030688	3.3560978	21	10 13.5	20.8
518799 2010 BJ_{92}	16.7	X	74.75186	115.25878	70.95206	9.91505	0.0652175	0.21878809	2.7276392	21	6 14.5	20.3
518800 2010 BD_{94}	15.5	X	224.77037	347.87390	321.29952	7.99932	0.1581441	0.16209031	3.3314350	21	2 13.9	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518801 2010 BM_{94}	16.9	X	324.79621	249.38709	86.56796	16.53520	0.0623484	0.23097256	2.6308482	21	7 25.8	20.3
518802 2010 BU_{97}	16.2	X	94.85971	269.92290	270.85986	10.67860	0.1108749	0.19215965	2.9741389	21	7 10.7	20.4
518803 2010 BL_{107}	16.2	X	19.75261	41.47120	61.51893	11.30127	0.1062790	0.18500316	3.0503519	21	—	—
518804 2010 BP_{110}	15.9	X	243.41106	316.35212	2.46605	16.97495	0.1181019	0.16944194	3.2343631	21	3 16.9	21.0
518805 2010 BG_{112}	16.4	X	358.48249	352.43326	108.34303	7.41255	0.1721384	0.17851868	3.1237788	21	—	—
518806 2010 BY_{126}	16.3	X	37.05906	329.22698	123.09549	10.54370	0.1212633	0.18628482	3.0363447	21	—	—
518807 2010 BV_{127}	15.9	X	43.02463	272.19357	240.79714	16.86897	0.0885553	0.17287953	3.1913444	21	3 16.9	20.4
518808 2010 CN_{7}	16.2	X	306.08101	31.97634	114.68368	27.40642	0.1153618	0.17541666	3.1604978	21	—	—
518809 2010 CE_{14}	16.0	X	338.51290	17.45625	127.37029	18.17709	0.0880411	0.18223464	3.0811683	21	—	—
518810 2010 CF_{19}	21.7	X	315.28818	265.29247	154.72078	7.17759	0.2697935	0.75640618	1.1929786	21	—	—
518811 2010 CN_{43}	16.0	X	44.10607	347.73181	122.43850	11.80206	0.0510361	0.17787541	3.1313055	21	1 28.1	20.0
518812 2010 CC_{46}	15.9	X	44.08577	255.67623	124.88064	16.46781	0.0347531	0.17131735	3.2107155	21	12 31.5	20.6
518813 2010 CH_{48}	16.9	X	319.40912	98.74926	38.53919	18.68372	0.0735648	0.23429830	2.6058933	21	—	—
518814 2010 CG_{49}	16.8	X	145.04618	52.20530	266.13515	22.19729	0.0836990	0.26644890	2.3918105	21	—	—
518815 2010 CQ_{53}	16.3	X	117.66447	259.15739	97.37683	10.44252	0.1579091	0.18545318	3.0454153	21	—	—
518816 2010 CZ_{53}	16.2	X	110.94954	285.63890	265.50576	10.75741	0.0912820	0.19514268	2.9437519	21	8 6.8	20.6
518817 2010 CB_{93}	15.3	X	198.12926	189.42261	124.33299	12.88727	0.0524334	0.17726748	3.1384605	21	1 24.3	20.0
518818 2010 CP_{104}	16.6	X	3.33850	60.93616	151.57168	4.84408	0.1606160	0.18531549	3.0469236	21	4 4.7	20.0
518819 2010 CY_{110}	16.2	X	237.27244	341.30017	334.03743	15.12210	0.0745542	0.18373429	3.0643796	21	3 4.6	20.9
518820 2010 CG_{114}	16.1	X	169.81566	214.89730	122.59250	6.40842	0.0936125	0.17295791	3.1903801	21	1 25.7	21.1
518821 2010 CS_{114}	17.7	X	64.38124	351.69143	133.22681	7.18854	0.0678214	0.27025335	2.3693106	21	3 1.4	20.2
518822 2010 CW_{134}	17.2	X	267.13589	1.57600	230.53071	28.89590	0.1047758	0.24315890	2.5421974	21	—	—
518823 2010 CD_{140}	15.7	X	269.80495	248.53542	304.86672	19.10884	0.0828853	0.17687732	3.1430741	21	—	—
518824 2010 CZ_{163}	16.3	X	162.26544	283.65521	336.97088	13.91172	0.0896753	0.23806710	2.5783179	21	—	—
518825 2010 CM_{169}	17.0	X	19.85645	78.21546	132.79317	13.39181	0.0461615	0.19488644	2.9463317	21	5 4.3	21.1
518826 2010 CB_{182}	17.9	X	305.81291	61.17478	171.53266	2.58585	0.1481759	0.26242889	2.4161745	21	1 18.1	21.1
518827 2010 CB_{184}	15.5	X	355.59016	280.49733	263.22887	14.63065	0.2007769	0.17598125	3.1537344	21	2 1.8	19.4
518828 2010 CC_{184}	15.8	X	164.27105	322.83445	89.40616	17.83826	0.1977061	0.19798921	2.9154686	21	4 29.1	20.9
518829 2010 CJ_{187}	16.0	X	317.53158	12.52175	316.00131	17.53040	0.1341850	0.18747413	3.0234896	21	6 25.6	20.0
518830 2010 CH_{195}	16.3	X	293.59691	98.69470	205.95507	25.70655	0.1741307	0.17410646	3.1763337	21	4 13.8	20.9
518831 2010 CJ_{195}	18.0	X	282.44933	308.41898	247.39136	3.55166	0.1751011	0.23926905	2.5696760	21	—	—
518832 2010 CK_{199}	16.7	X	37.24294	223.96356	39.83742	4.58973	0.0812832	0.19244297	2.9712192	21	8 8.8	20.5
518833 2010 CW_{199}	16.6	X	352.17497	145.56484	358.53548	8.41774	0.0287735	0.18569647	3.0427547	21	—	—
518834 2010 CM_{200}	17.2	X	277.69633	291.34364	201.03862	12.48222	0.2011382	0.22613761	2.6682151	21	11 25.2	20.3
518835 2010 CV_{221}	17.4	X	249.82680	117.55124	11.71727	13.38458	0.0905255	0.24302921	2.5431017	21	10 27.4	20.8
518836 2010 CO_{223}	16.5	X	316.49837	109.37022	320.35911	9.37154	0.0649111	0.16241133	3.3270437	21	11 1.6	21.2
518837 2010 CX_{223}	16.8	X	291.69614	251.83418	156.76908	11.91980	0.0765503	0.20455300	2.8527616	21	9 9.8	20.5
518838 2010 CJ_{228}	16.6	X	22.73045	17.57946	87.98134	19.15198	0.1053114	0.18417471	3.0594924	21	—	—
518839 2010 CD_{232}	15.9	X	198.34677	158.16164	91.79861	15.80562	0.0315011	0.17864623	3.1222917	21	—	—
518840 2010 CB_{234}	17.0	X	93.02221	146.15647	115.42014	11.60555	0.0944552	0.24223602	2.5486502	21	10 29.2	20.8
518841 2010 CR_{236}	16.1	X	190.62705	205.26292	25.29502	20.17182	0.1035677	0.17081520	3.2170048	21	12 10.7	21.4
518842 2010 CF_{239}	16.1	X	87.91336	258.31098	102.97785	9.00750	0.0589933	0.17960818	3.1111335	21	—	—
518843 2010 CC_{240}	17.2	X	60.54377	309.74237	208.40627	3.79236	0.0116731	0.20839825	2.8175611	21	4 11.9	21.0
518844 2010 CH_{243}	15.6	X	290.41907	277.59271	258.41797	24.02194	0.2489653	0.17578152	3.1561229	21	—	—
518845 2010 CA_{251}	17.3	X	27.63346	29.18574	57.99643	7.37637	0.1100246	0.25649198	2.4533162	21	—	—
518846 2010 CF_{252}	16.3	X	305.42122	311.12418	355.62059	9.20611	0.0688322	0.19112808	2.9848308	21	5 13.1	20.5
518847 2010 DM	18.9	X	334.79530	220.97543	140.79258	5.00514	0.8400156	0.32849060	2.0802750	21	4 22.9	21.8
518848 2010 DA_{15}	15.9	X	205.66430	295.88121	102.01060	16.90003	0.1388514	0.17918401	3.1160413	21	5 16.2	21.1
518849 2010 DO_{17}	16.7	X	264.42562	22.32614	162.27021	18.88346	0.0826817	0.17277886	3.1925838	21	—	—
518850 2010 DK_{19}	16.2	X	321.54507	111.66074	154.04729	12.44928	0.0452296	0.17458977	3.1704691	21	4 23.9	20.7
518851 2010 DX_{29}	16.1	X	102.38553	309.89312	173.84903	10.81127	0.1044493	0.17711498	3.1402618	21	5 10.9	20.7
518852 2010 DG_{30}	16.0	X	27.26614	349.25942	105.80605	17.18684	0.0268431	0.18210441	3.0826371	21	—	—
518853 2010 DH_{33}	16.2	X	28.11668	242.41341	200.78251	10.76336	0.1788888	0.17929089	3.1148029	21	—	—
518854 2010 DE_{51}	16.5	X	74.66115	284.84185	288.12098	4.87151	0.0557346	0.18949568	3.0019480	21	7 19.2	20.5
518855 2010 DP_{52}	16.7	X	352.74311	306.65680	0.93196	3.69304	0.3166586	0.18443165	3.0566502	21	7 23.5	18.9
518856 2010 DR_{54}	17.8	X	357.94992	345.73749	100.10016	2.70159	0.0392753	0.24523700	2.5278156	21	—	—
518857 2010 DM_{60}	16.2	X	299.83518	236.06015	295.49278	14.16100	0.0667989	0.17722232	3.1389937	21	—	—
518858 2010 DK_{61}	16.6	X	127.52710	319.27821	216.15265	28.03476	0.0864095	0.22037160	2.7145570	21	7 31.9	21.3
518859 2010 DT_{62}	16.2	X	66.19960	310.85056	202.50086	9.33899	0.1292489	0.17489203	3.1668151	21	5 3.1	20.3
518860 2010 DE_{64}	15.8	X	282.81697	294.07275	4.56182	15.84504	0.1013605	0.16944580	3.2343139	21	4 2.5	20.5
518861 2010 DW_{65}	16.8	X	303.98094	35.99541	332.35920	10.97094	0.1955859	0.23123736	2.6288394	21	7 19.9	19.9
518862 2010 DY_{68}	17.2	X	245.34631	271.92623	216.24078	7.97730	0.1162961	0.23849737	2.5752159	21	10 18.4	20.6
518863 2010 DM_{73}	17.1	X	246.14237	239.67641	196.31142	10.77903	0.1594230	0.22842200	2.6503959	21	8 2.4	21.3
518864 2010 DN_{81}	16.8	X	252.42753	188.51195	109.73278	3.40667	0.0621271	0.19079222	2.9883327	21	3 3.8	21.2
518865 2010 DB_{86}	16.1	X	117.42533	296.97814	333.79460	19.80227	0.1506888	0.21072026	2.7968243	21	11 24.6	21.0
518866 2010 DV_{87}	17.1	X	200.41421	47.03413	203.07355	11.76024	0.1678456	0.22678785	2.6631126	21	—	—
518867 2010 DP_{88}	16.8	X	246.48012	302.32816	69.00401	5.35402	0.1191490	0.21639782	2.7476883	21	5 18.4	20.8
518868 2010 DB_{89}	16.9	X	14.89120	206.33078	257.42928	4.27123	0.1154309	0.17914355	3.1165106	21	—	—
518869 2010 DL_{89}	17.4	X	152.04136	236.73718	259.98956	3.55809	0.0333708	0.21951735	2.7215949	21	7 14.7	21.3
518870 2010 DW_{89}	17.1	X	185.70625	17.03629	62.18394	5.82926	0.0622095	0.21484641	2.7608998	21	6 10.3	21.1
518871 2010 DV_{93}	17.1	X	334.04631	214.54868	142.92680	6.71976	0.0529538	0.21981169	2.7191648	21	9 8.2	20.4
518872 2010 DZ_{93}	17.7	X	255.43087	324.30039	191.57825	3.59998	0.1089014	0.23266889	2.6180454	21	12 7.9	21.0
518873 2010 DA_{94}	17.6	X	269.85078	342.64648	181.55122	12.87747	0.1003159	0.23752623	2.5822305	21	—	—
518874 2010 ED_{9}	16.3	X	319.59969	177.52325	137.37626	9.50378	0.0512552	0.18237373	3.0796015	21	6 19.3	20.5
518875 2010 ER_{24}	16.0	X	42.60370	2.17351	205.76364	11.76242	0.1754510	0.17962537	3.1109350	21	6 12.5	19.8
518876 2010 EM_{36}	17.0	X	252.59812	347.69963	179.28673	8.77231	0.1200484	0.23408297	2.6074911	21	12 17.1	20.5
518877 2010 EJ_{37}	17.4	X	83.29945	269.74804	173.07270	14.51016	0.0396180	0.25800077	2.4437422	21	1 26.4	20.6
518878 2010 EY_{41}	16.8	X	53.01617	240.16555	224.86489	2.10407	0.1023934	0.17452814	3.1712154	21	2 6.3	20.7
518879 2010 EG_{50}	16.2	X	358.73342	270.84590	319.64688	23.97335	0.2899068	0.17374903	3.1806884	21	3 24.8	19.8
518880 2010 EA_{73}	16.8	X	302.47740	217.57032	55.47246	0.37101	0.1307985	0.18068359	3.0987764	21	3 22.5	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518881 2010 EQ_{139}	16.9	X	6.25212	342.08351	188.39720	0.88806	0.1190637	0.17203563	3.2017723	21	2 16.7	20.7
518882 2010 EA_{145}	16.4	X	38.56011	300.36244	118.74593	2.19483	0.0235193	0.17514909	3.1637157	21	—	—
518883 2010 EB_{148}	16.0	X	338.00009	344.24672	147.87951	11.07868	0.0632327	0.17509124	3.1644126	21	—	—
518884 2010 EY_{149}	16.6	X	336.20670	108.84376	207.86275	7.07899	0.1131183	0.18445245	3.0564204	21	7 9.2	20.4
518885 2010 ET_{154}	16.0	X	115.01862	334.08924	356.44993	10.51590	0.0517673	0.17073338	3.2180325	21	—	—
518886 2010 EK_{157}	16.1	X	353.51636	269.86863	189.41844	17.70489	0.1185491	0.17099137	3.2147948	21	—	—
518887 2010 EM_{162}	16.6	X	144.95093	295.29523	139.69408	6.51360	0.0613311	0.20391294	2.8587282	21	4 22.4	20.8
518888 2010 EW_{162}	16.7	X	36.02487	8.80203	96.34412	6.92329	0.0632639	0.18416320	3.0596199	21	1 9.6	20.6
518889 2010 ET_{163}	15.6	X	255.10590	133.42596	72.49319	17.57313	0.0916614	0.17248208	3.1962450	21	—	—
518890 2010 EL_{169}	16.9	X	2.94334	173.85702	92.57266	5.09206	0.0254407	0.21413819	2.7669839	21	6 16.7	20.3
518891 2010 EX_{169}	15.9	X	327.39786	209.61267	282.20717	16.60262	0.1426842	0.17139047	3.2098021	21	—	—
518892 2010 EJ_{173}	16.5	X	339.95970	318.96241	189.53884	1.51035	0.1542371	0.16270642	3.3230198	21	—	—
518893 2010 FL_{7}	16.0	X	341.83044	345.79766	142.07202	9.85069	0.0611012	0.17377303	3.1803955	21	—	—
518894 2010 FF_{36}	15.7	X	358.93812	226.72071	356.61149	19.26205	0.1745008	0.17054278	3.2204297	21	4 5.2	19.6
518895 2010 FR_{38}	16.2	X	45.85695	133.81852	263.32448	8.18454	0.0763662	0.16945796	3.2341593	21	—	—
518896 2010 FO_{42}	15.8	X	27.36578	68.02078	169.23410	23.33520	0.1025053	0.17930260	3.1146672	21	6 19.8	20.2
518897 2010 FR_{44}	16.4	X	42.22786	176.96000	296.40041	9.45260	0.0454321	0.18408624	3.0604726	21	1 26.9	20.3
518898 2010 FF_{58}	15.8	X	292.79096	0.06989	309.44470	14.06290	0.0466363	0.17110831	3.2133299	21	5 2.2	20.6
518899 2010 FO_{61}	16.0	X	350.00429	285.07879	353.56943	14.85061	0.0721897	0.17749970	3.1357225	21	6 12.5	20.4
518900 2010 FK_{64}	15.9	X	2.96556	296.40427	281.13714	12.94783	0.2084276	0.19267576	2.9688254	21	3 27.7	19.2
518901 2010 FW_{73}	16.4	X	348.26335	281.41928	329.59076	3.74913	0.1810727	0.17179374	3.2047771	21	4 25.8	20.2
518902 2010 FF_{76}	16.3	X	172.43399	111.93638	283.18760	10.96646	0.0630874	0.19677038	2.9274954	21	3 26.9	21.0
518903 2010 FA_{78}	16.5	X	165.76096	80.84642	101.13303	12.51088	0.1419819	0.22497524	2.6773978	21	10 5.6	21.0
518904 2010 FV_{79}	15.9	X	73.18314	143.56746	103.86225	14.79837	0.0529496	0.18981028	2.9986301	21	9 5.3	20.3
518905 2010 FM_{86}	16.5	X	329.06001	347.08209	212.83521	6.21359	0.1153138	0.18253984	3.0777330	21	1 26.0	20.6
518906 2010 FB_{98}	16.1	X	238.69838	296.93079	356.91203	8.36918	0.0817718	0.16951398	3.2334467	21	2 14.5	21.1
518907 2010 FW_{107}	17.0	X	4.07034	122.72756	139.40570	5.12653	0.0182253	0.21074183	2.7966335	21	6 12.9	20.8
518908 2010 FN_{112}	16.8	X	263.49817	111.51933	260.98474	3.24376	0.0905188	0.21533401	2.7567304	21	6 12.2	20.7
518909 2010 FH_{115}	16.0	X	21.04359	132.97767	357.19052	17.26166	0.1245737	0.18144731	3.0900750	21	1 24.4	20.0
518910 2010 FR_{116}	16.5	X	108.42250	265.48621	283.69942	5.58005	0.1740148	0.21213895	2.7843411	21	8 13.5	20.9
518911 2010 FW_{118}	16.1	X	49.85100	266.27362	2.84237	9.27490	0.0732461	0.18927212	3.0043114	21	9 2.3	20.2
518912 2010 FC_{121}	16.9	X	322.45916	211.34980	237.39769	9.02650	0.0617700	0.24455249	2.5325303	21	12 25.7	19.9
518913 2010 GS	17.3	X	240.17676	356.74326	122.12845	6.73236	0.1575043	0.23100287	2.6306181	21	9 27.1	21.1
518914 2010 GL_{11}	17.0	X	146.90801	203.90054	75.52036	9.02800	0.1909352	0.21450733	2.7638085	21	—	—
518915 2010 GA_{12}	16.3	X	27.48027	337.40956	121.50167	7.00530	0.2336068	0.17702145	3.1413678	21	—	—
518916 2010 GR_{17}	17.2	X	281.90605	44.19988	146.59449	10.88622	0.1765509	0.23147523	2.6270380	21	—	—
518917 2010 GN_{22}	17.4	X	238.82443	151.78644	287.12663	1.04494	0.1814732	0.22346645	2.6894357	21	7 29.5	21.5
518918 2010 GE_{32}	17.0	X	36.04045	279.96236	14.66319	1.77556	0.0276157	0.20686428	2.8314727	21	9 10.2	20.8
518919 2010 GS_{37}	16.3	X	144.51330	331.66107	73.11918	9.69776	0.0801481	0.19155537	2.9803905	21	3 21.2	20.8
518920 2010 GD_{43}	16.2	X	42.06250	334.92012	177.88618	11.68456	0.1186100	0.18896643	3.0075506	21	3 21.8	19.7
518921 2010 GM_{45}	16.3	X	65.72551	275.90761	128.21391	26.23223	0.2834822	0.17741363	3.1367367	21	1 3.6	19.8
518922 2010 GU_{49}	15.4	X	23.44108	128.70986	331.89239	26.20997	0.1484390	0.17496300	3.1659587	21	—	—
518923 2010 GD_{50}	17.2	X	201.82765	47.94196	195.04584	0.82622	0.1607316	0.22142639	2.7059294	21	—	—
518924 2010 GQ_{50}	16.2	X	311.81417	219.28256	337.47313	9.23357	0.1259307	0.17574820	3.1565217	21	1 3.6	20.8
518925 2010 GW_{56}	17.3	X	224.16024	123.31273	324.02544	6.18434	0.1166854	0.21946848	2.7219989	21	7 31.9	21.4
518926 2010 GX_{56}	16.4	X	73.65425	97.55772	318.88341	12.38216	0.1828117	0.17906448	3.1174279	21	1 18.8	20.1
518927 2010 GP_{64}	16.3	X	346.18853	133.01572	200.40449	19.65900	0.1601150	0.18404901	3.0608853	21	8 13.0	20.2
518928 2010 GQ_{72}	15.7	X	102.47923	341.84626	66.56925	17.73572	0.0985006	0.18096412	3.0955731	21	2 9.3	20.3
518929 2010 GT_{75}	17.1	X	162.17100	129.37898	132.72848	8.32926	0.1847264	0.21508364	2.7588693	21	12 28.1	21.8
518930 2010 GR_{77}	16.9	X	37.23928	61.07333	43.46019	10.92667	0.2642300	0.17935450	3.1140664	21	1 19.9	19.9
518931 2010 GX_{85}	16.6	X	28.07184	45.29549	230.46276	7.12547	0.1858877	0.21206589	2.7849806	21	8 19.9	19.8
518932 2010 GM_{91}	16.2	X	307.19196	74.26583	156.62976	10.97989	0.0214969	0.18454928	3.0553513	21	2 18.9	20.4
518933 2010 GW_{92}	17.2	X	340.64048	332.66528	68.36250	9.97312	0.1584259	0.23826001	2.5769260	21	11 23.8	19.5
518934 2010 GE_{94}	16.5	X	353.20444	158.05967	26.08165	9.65210	0.0947217	0.18267873	3.0761728	21	2 18.3	20.5
518935 2010 GC_{96}	17.2	X	179.00034	20.87386	80.90887	9.18717	0.1881347	0.21169410	2.7882404	21	7 2.8	21.9
518936 2010 GR_{103}	17.1	X	187.64493	170.26602	110.52206	6.25068	0.2146812	0.23095602	2.6309738	21	—	—
518937 2010 GT_{113}	16.5	X	95.36623	270.27222	214.99337	4.81266	0.1421199	0.18134592	3.0912267	21	5 7.1	20.7
518938 2010 GL_{116}	17.7	X	355.20734	6.91004	207.13378	5.56262	0.0620615	0.26338471	2.4103254	21	3 14.9	20.6
518939 2010 GM_{126}	18.0	X	255.49552	38.65028	215.05020	7.73689	0.1544351	0.24553379	2.5257782	21	—	—
518940 2010 GW_{143}	15.8	X	171.08531	289.77173	99.70973	9.19890	0.0482429	0.17098951	3.2148182	21	3 31.1	20.7
518941 2010 GV_{149}	16.8	X	244.45232	299.21968	316.52756	11.12912	0.1700229	0.23344954	2.6122057	21	—	—
518942 2010 GV_{153}	17.3	X	128.79042	14.78656	228.91493	16.92513	0.0942021	0.22879309	2.6475294	21	11 7.2	21.3
518943 2010 GP_{163}	16.5	X	85.02078	284.03324	19.94183	12.29787	0.1454597	0.20282342	2.8689567	21	12 3.8	21.0
518944 2010 GH_{166}	16.8	X	232.00050	215.88070	331.69342	16.55119	0.0771751	0.24364735	2.5387986	21	12 26.8	20.5
518945 2010 GM_{167}	15.7	X	36.00745	128.17412	328.69576	26.27731	0.2494367	0.17873360	3.1212741	21	1 11.4	19.1
518946 2010 GO_{176}	16.3	X	264.59142	343.98491	346.41642	11.17097	0.0837817	0.19064203	2.9899019	21	4 17.9	20.8
518947 2010 GQ_{176}	17.1	X	277.92717	33.28607	68.93614	12.55000	0.1062574	0.21947731	2.7219259	21	10 31.9	20.6
518948 2010 HV_{5}	15.9	X	297.47279	267.70165	346.52603	9.76583	0.0643825	0.18624841	3.0367404	21	3 2.2	20.1
518949 2010 HC_{7}	16.9	X	27.06028	182.55678	99.93108	2.97844	0.2099431	0.18422897	3.0588917	21	9 2.3	20.4
518950 2010 HO_{7}	15.5	X	65.98311	329.53182	117.46380	27.86510	0.0841883	0.17929017	3.1148112	21	2 1.2	19.6
518951 2010 HN_{8}	15.9	X	292.57926	236.70914	117.19070	26.54907	0.1674076	0.17420656	3.1751168	21	6 19.1	20.5
518952 2010 HD_{10}	16.0	X	5.47706	310.68802	180.37768	26.14691	0.1113101	0.17483191	3.1675411	21	—	—
518953 2010 HK_{11}	17.7	X	224.81400	76.09639	39.15564	11.95998	0.1546195	0.22418476	2.6836878	21	9 8.6	21.9
518954 2010 HG_{13}	16.9	X	323.48796	202.76244	135.80755	11.87680	0.2222942	0.17728408	3.1382646	21	7 4.9	20.6
518955 2010 HH_{14}	15.6	X	109.46959	116.93589	268.95469	13.96686	0.0956450	0.17629744	3.1499624	21	1 14.5	20.1
518956 2010 HY_{19}	15.7	X	75.13108	248.01076	153.12099	14.19809	0.1207168	0.17299925	3.1898719	21	—	—
518957 2010 HD_{27}	15.6	X	190.78962	216.23684	112.73519	19.68206	0.1190543	0.17985679	3.1082659	21	2 6.4	20.6
518958 2010 HR_{28}	16.5	X	333.98659	197.02869	129.61028	15.35251	0.0805670	0.21359280	2.7716920	21	7 23.5	19.9
518959 2010 HP_{34}	16.0	X	4.48929	264.45830	231.65829	8.68778	0.0644940	0.17457079	3.1706989	21	1 4.7	20.3
518960 2010 HF_{35}	16.3	X	216.05747	70.48545	25.28476	15.67099	0.0428787	0.18265654	3.0764220	21	8 14.7	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
518961 2010 HR_{38}	16.7	X	229.88694	239.15677	27.92295	11.79419	0.1703666	0.23085298	2.6317566	21	—	—
518962 2010 HT_{40}	16.1	X	21.68620	30.35765	207.03458	10.49592	0.1173704	0.17310345	3.1885916	21	6 10.7	20.1
518963 2010 HE_{43}	16.2	X	42.98100	352.26286	11.71632	9.08727	0.2258112	0.20042686	2.8917812	21	—	—
518964 2010 HF_{45}	17.0	X	175.93805	146.34625	189.01130	11.46220	0.0766244	0.23084062	2.6318506	21	1 16.2	21.0
518965 2010 HJ_{45}	16.9	X	1.16441	157.49048	127.71765	12.40846	0.2262884	0.17774512	3.1328355	21	7 11.1	20.0
518966 2010 HL_{45}	16.7	X	228.25493	307.97386	237.52342	6.58950	0.1019113	0.21124853	2.7921597	21	12 7.7	20.6
518967 2010 HN_{47}	16.3	X	341.15766	299.60070	351.68023	21.64524	0.1032256	0.17380909	3.1799557	21	6 13.5	20.8
518968 2010 HZ_{47}	16.0	X	323.43157	172.37309	139.00003	16.88476	0.0632382	0.17341529	3.1847680	21	6 20.1	20.5
518969 2010 HL_{50}	16.2	X	314.50956	344.41724	22.28010	19.63207	0.1028350	0.18190549	3.0848840	21	8 23.8	20.5
518970 2010 HU_{51}	16.6	X	311.18506	227.34981	103.58348	20.35893	0.1391875	0.17304451	3.1893156	21	6 17.8	20.8
518971 2010 HE_{53}	16.9	X	204.28386	295.70916	166.23400	7.86374	0.1664281	0.21648934	2.7469138	21	7 24.9	21.5
518972 2010 HX_{54}	16.4	X	252.37281	257.69799	54.24312	14.20098	0.0363381	0.18944427	3.0024912	21	3 28.9	20.9
518973 2010 HW_{60}	16.0	X	288.66954	254.81474	5.11346	14.36889	0.2224597	0.17968256	3.1102748	21	2 12.6	20.9
518974 2010 HC_{66}	17.4	X	275.79530	354.68445	274.04518	7.94805	0.1326853	0.24146049	2.5541045	21	2 2.9	21.3
518975 2010 HD_{66}	16.0	X	40.29495	273.14871	300.73642	17.42316	0.0943774	0.17086773	3.2163454	21	6 7.3	20.4
518976 2010 HH_{67}	16.8	X	138.99366	95.16551	69.41219	8.47374	0.1533550	0.21108878	2.7935682	21	8 15.9	21.3
518977 2010 HX_{73}	15.5	X	345.98010	59.38788	123.95325	23.37501	0.0771013	0.17851530	3.1238182	21	2 5.9	19.6
518978 2010 HA_{76}	16.4	X	8.12051	107.68339	145.41190	26.02665	0.2617978	0.17501652	3.1653132	21	6 16.3	19.9
518979 2010 HU_{88}	16.8	X	136.95037	96.47475	126.74783	12.16182	0.1544975	0.22213761	2.7001506	21	10 27.9	21.4
518980 2010 HD_{94}	16.5	X	8.83241	270.79704	201.00559	15.68188	0.0969773	0.16993759	3.2280710	21	—	—
518981 2010 HO_{95}	16.0	X	210.70307	271.16748	29.46212	23.59737	0.1006622	0.17487124	3.1670661	21	1 31.1	21.4
518982 2010 HR_{113}	16.9	X	148.69907	259.76610	33.98103	13.70496	0.1745581	0.21534489	2.7566375	21	—	—
518983 2010 HS_{114}	17.9	X	334.98398	99.90278	200.27971	5.70745	0.0996663	0.27480829	2.3430569	21	6 14.2	20.4
518984 2010 JH_{6}	17.1	X	137.43802	312.04051	34.43128	6.40693	0.1388827	0.22097348	2.7096256	21	—	—
518985 2010 JO_{10}	16.3	X	1.59258	125.75109	143.60161	15.96653	0.2468912	0.17494746	3.1661462	21	6 20.2	19.6
518986 2010 JP_{10}	17.0	X	223.63327	64.08664	208.30808	9.68447	0.1891790	0.22905590	2.6455039	21	—	—
518987 2010 JN_{12}	16.2	X	316.97969	5.31513	218.25814	10.34989	0.1709575	0.17760578	3.1344738	21	1 30.6	20.7
518988 2010 JU_{17}	15.9	X	344.68005	38.45479	277.56255	9.44728	0.0655029	0.17728125	3.1382980	21	7 24.2	20.1
518989 2010 JB_{21}	17.1	X	207.52007	190.05242	37.29314	7.10596	0.0640084	0.24172253	2.5522583	21	—	—
518990 2010 JV_{24}	15.8	X	250.57776	318.55282	317.34125	25.96212	0.1419223	0.17407461	3.1767212	21	1 31.3	20.8
518991 2010 JP_{26}	16.9	X	58.29526	132.03636	131.29342	15.51572	0.0676283	0.21352204	2.7723044	21	9 8.4	20.7
518992 2010 JY_{38}	16.3	X	294.07074	118.09031	211.32693	6.80427	0.0954326	0.18371313	3.0646150	21	5 27.5	20.4
518993 2010 JK_{54}	16.2	X	338.20252	245.48919	306.46508	12.31703	0.2457440	0.17454698	3.1709872	21	1 15.1	20.2
518994 2010 JX_{56}	15.8	X	349.83277	147.99739	11.88577	27.35935	0.1271687	0.17366009	3.1817743	21	1 16.6	20.4
518995 2010 JR_{57}	16.2	X	50.87020	287.76033	156.79219	18.42924	0.1856977	0.17486537	3.1671370	21	1 14.6	20.1
518996 2010 JB_{58}	16.7	X	344.72142	233.41681	86.23329	2.01427	0.1534341	0.17733022	3.1377202	21	7 27.6	20.1
518997 2010 JW_{59}	15.8	X	44.31174	357.12044	102.48045	18.96067	0.0432601	0.17264910	3.1941833	21	1 16.3	20.1
518998 2010 JR_{60}	16.5	X	344.42248	111.46089	197.86079	15.92993	0.1094556	0.17576099	3.1563687	21	7 11.5	20.7
518999 2010 JU_{61}	16.4	X	1.18838	182.95803	141.55632	12.75545	0.1732868	0.18205099	3.0832402	21	9 7.1	19.7
519000 2010 JU_{65}	16.4	X	287.53359	175.56852	98.22192	6.69504	0.0594054	0.18437098	3.0573207	21	3 17.8	20.8
519001 2010 JQ_{69}	16.0	X	67.60064	341.77361	241.61140	23.43045	0.1604283	0.17919173	3.1159519	21	7 29.4	20.8
519002 2010 JD_{70}	15.7	X	179.81050	44.36499	286.61081	14.85449	0.0563526	0.17304707	3.1892842	21	1 23.9	20.6
519003 2010 JN_{70}	15.8	X	228.36062	33.19887	268.31820	11.26381	0.0549934	0.17706448	3.1408589	21	2 6.8	20.6
519004 2010 JP_{92}	16.4	X	310.59813	41.01222	303.16767	4.56094	0.2125132	0.17231530	3.1983070	21	6 21.8	20.4
519005 2010 JA_{93}	15.9	X	208.10811	99.96808	247.47472	15.09703	0.1591288	0.18542994	3.0456698	21	3 6.5	21.3
519006 2010 JX_{94}	17.0	X	264.30741	165.57652	70.04555	15.09350	0.1067413	0.22929153	2.6436911	21	—	—
519007 2010 JG_{95}	16.5	X	201.08972	159.24167	215.79127	6.36445	0.0964809	0.19120885	2.9839902	21	4 7.7	21.0
519008 2010 JB_{96}	16.2	X	353.90754	267.14533	74.78022	15.35299	0.0715377	0.18398701	3.0615730	21	9 21.7	20.4
519009 2010 JG_{97}	17.4	X	217.01465	329.28745	210.17413	4.40383	0.1049696	0.23189224	2.6238877	21	11 20.8	21.2
519010 2010 JF_{98}	15.7	X	220.49547	45.54134	288.85286	7.90617	0.1332188	0.18382227	3.0634018	21	3 6.1	20.8
519011 2010 JV_{98}	15.9	X	223.52447	327.83137	8.31759	8.65916	0.0514443	0.18522979	3.0478633	21	3 18.9	20.3
519012 2010 JK_{102}	16.0	X	325.70552	288.22196	290.77179	16.26335	0.1283584	0.17776056	3.1326541	21	2 9.8	20.3
519013 2010 JD_{103}	16.0	X	34.03933	339.26693	288.60276	14.23171	0.0956906	0.17843810	3.1247191	21	8 5.0	20.1
519014 2010 JO_{108}	17.3	X	155.39878	125.24486	52.77462	12.35992	0.1232776	0.21595853	2.7514132	21	9 20.1	21.8
519015 2010 JO_{109}	14.9	X	263.56230	284.36984	133.88460	27.16780	0.1277790	0.17758494	3.1347191	21	8 5.4	19.2
519016 2010 JX_{113}	16.1	X	317.54005	220.01563	65.79662	12.69905	0.0900452	0.17683046	3.1436293	21	5 6.5	20.2
519017 2010 JM_{115}	16.6	X	79.00677	242.00454	28.76745	13.29005	0.2024595	0.20418854	2.8561552	21	10 27.0	20.9
519018 2010 JD_{116}	17.0	X	237.33503	5.25059	234.16354	13.18630	0.2032053	0.23526471	2.5987521	21	—	—
519019 2010 JV_{130}	16.5	X	206.86776	33.09797	108.90971	17.87635	0.1834681	0.22167534	2.7039031	21	9 23.3	21.2
519020 2010 JC_{131}	16.4	X	5.80595	293.33038	345.07618	9.30398	0.2053471	0.17542077	3.1604485	21	7 13.8	19.8
519021 2010 JH_{132}	16.5	X	308.69857	264.96223	116.18658	25.42786	0.3169627	0.17515569	3.1636364	21	7 21.0	20.2
519022 2010 JS_{132}	16.5	X	4.79044	26.63854	213.63978	8.28099	0.1327168	0.19191046	2.9767129	21	5 15.2	19.9
519023 2010 JG_{134}	17.0	X	239.94009	141.16882	102.82630	13.54161	0.2115652	0.22721967	2.6597374	21	—	—
519024 2010 JF_{135}	16.4	X	0.32077	118.94449	69.43903	18.15759	0.1102367	0.18023404	3.1039271	21	3 11.8	20.6
519025 2010 JC_{137}	16.6	X	145.78338	295.51275	262.06244	4.36456	0.0363441	0.21850589	2.7299872	21	9 23.3	20.4
519026 2010 JP_{137}	16.3	X	328.19789	143.82936	78.25482	15.75553	0.1446539	0.17834097	3.1258536	21	2 26.9	20.7
519027 2010 JX_{138}	15.7	X	357.51921	318.43324	345.70488	14.85185	0.0765063	0.17660760	3.1462734	21	8 3.3	19.9
519028 2010 JG_{141}	16.1	X	288.86072	216.16845	351.76486	16.75378	0.0189213	0.16856349	3.2455904	21	1 8.0	21.0
519029 2010 JE_{143}	16.9	X	79.01875	326.60464	20.37085	5.01607	0.1632877	0.20456660	2.8526352	21	—	—
519030 2010 JT_{145}	15.9	X	299.29499	251.50461	12.79799	26.55698	0.1718196	0.18069323	3.0986662	21	3 12.0	20.5
519031 2010 JR_{146}	17.0	X	297.68808	132.08244	274.65591	6.30116	0.0598687	0.22054767	2.7131121	21	9 15.3	20.5
519032 2010 JR_{156}	17.3	X	327.47821	123.37081	199.62135	10.17330	0.1079062	0.18792721	3.0186281	21	7 3.7	21.3
519033 2010 JZ_{167}	16.6	X	191.36965	143.33606	208.33901	14.38546	0.2719175	0.24041578	2.5614983	21	2 25.1	21.4
519034 2010 KG_{5}	15.8	X	356.66580	221.80091	62.63195	10.75311	0.0863255	0.17203909	3.2017294	21	7 1.7	19.9
519035 2010 KJ_{5}	15.6	X	359.68751	209.37948	94.62039	29.23546	0.1804326	0.17670594	3.1451060	21	8 5.9	19.4
519036 2010 KM_{11}	15.7	X	262.02881	159.02376	87.85973	22.70195	0.0394344	0.16968214	3.2313100	21	1 17.2	20.5
519037 2010 KA_{13}	16.3	X	69.70749	179.02771	87.55466	8.00507	0.1800115	0.18821522	3.0155478	21	10 11.9	20.7
519038 2010 KJ_{14}	15.7	X	315.50521	226.51881	2.41259	27.12266	0.2227799	0.17475695	3.1684467	21	2 13.6	20.5
519039 2010 KO_{18}	16.5	X	2.73500	54.89990	239.00451	9.24049	0.2080478	0.17640070	3.1487331	21	7 24.2	19.9
519040 2010 KC_{22}	16.0	X	65.32755	120.62852	189.65160	11.83311	0.0496560	0.19441843	2.9510581	21	11 10.2	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519041 2010 KH_{27}	15.6	X	280.49140	215.42954	166.59939	28.65315	0.1923461	0.17170638	3.2058640	21	7 2.6	20.7
519042 2010 KV_{30}	16.5	X	238.35923	246.06152	40.21986	19.43948	0.1248954	0.17199138	3.2023215	21	2 8.1	21.9
519043 2010 KG_{31}	16.4	X	32.93217	187.94825	118.57889	10.97605	0.1335379	0.18524004	3.0477509	21	10 7.5	20.4
519044 2010 KD_{32}	16.9	X	9.33115	18.80386	332.71027	3.05632	0.1272520	0.18793160	3.0185811	21	10 22.2	20.6
519045 2010 KE_{33}	17.6	X	206.78986	94.91512	139.43542	11.98987	0.1570564	0.23777878	2.5804017	21	—	—
519046 2010 KU_{35}	16.0	X	17.32954	117.81780	68.25330	22.13522	0.0249834	0.18393342	3.0621676	21	4 7.2	20.6
519047 2010 KZ_{46}	15.5	X	95.59791	307.98575	266.20108	20.24445	0.1721999	0.18135791	3.0910905	21	8 20.8	20.6
519048 2010 KM_{48}	16.3	X	60.59379	354.51209	253.40901	1.36097	0.1253704	0.17967654	3.1103443	21	8 24.4	20.3
519049 2010 KO_{50}	16.3	X	50.39552	243.25062	21.51611	15.41745	0.0313215	0.17857474	3.1231250	21	8 27.0	20.8
519050 2010 KA_{54}	15.6	X	12.99353	52.66962	262.18147	13.99954	0.0363411	0.18044142	3.1015483	21	8 26.5	20.1
519051 2010 KC_{75}	17.1	X	216.90451	186.53841	109.38061	3.65304	0.1844969	0.22882721	2.6472661	21	1 14.6	21.6
519052 2010 KX_{79}	16.9	X	135.36688	291.10111	68.58439	2.39630	0.0354362	0.22152286	2.7051437	21	—	—
519053 2010 KH_{83}	17.1	X	106.32552	343.85518	46.91523	9.10666	0.2302858	0.21709730	2.7417832	21	2 1.9	20.9
519054 2010 KC_{84}	16.3	X	4.28973	150.68406	5.83451	7.07272	0.0166516	0.17305628	3.1891710	21	2 4.9	20.8
519055 2010 KM_{84}	15.8	X	126.97823	278.11483	258.74676	18.60453	0.0595687	0.17443484	3.1723461	21	7 30.9	20.8
519056 2010 KB_{86}	16.5	X	295.11301	328.64364	299.78764	7.88585	0.1161424	0.17987698	3.1080332	21	3 6.5	21.1
519057 2010 KU_{87}	15.6	X	328.14972	28.12977	302.99428	9.16133	0.0913910	0.17247435	3.1963404	21	7 19.0	19.6
519058 2010 KY_{92}	17.0	X	346.96800	125.59655	85.17979	2.55516	0.0987382	0.17999534	3.1066706	21	3 11.8	20.9
519059 2010 KV_{98}	16.8	X	223.63184	56.98752	84.25535	12.46149	0.1314214	0.22406150	2.6846719	21	10 13.2	21.0
519060 2010 KM_{104}	16.8	X	18.04520	188.09257	330.00350	9.52398	0.1670135	0.17707373	3.1407495	21	2 18.1	20.2
519061 2010 KP_{106}	16.0	X	131.96810	350.67104	63.37745	16.60013	0.0854537	0.18091381	3.0961470	21	3 24.4	20.8
519062 2010 KE_{108}	16.6	X	70.81273	113.28750	151.72713	15.29361	0.1671967	0.18586623	3.0409018	21	10 9.1	21.1
519063 2010 KX_{109}	17.0	X	244.58982	55.91629	203.75647	4.65918	0.0912866	0.25313039	2.4749886	21	—	—
519064 2010 KY_{110}	16.1	X	329.50477	282.27199	281.01123	7.94630	0.0504748	0.17432820	3.1736397	21	2 9.2	20.5
519065 2010 KB_{113}	16.1	X	318.81182	60.95222	201.26332	12.62813	0.1098312	0.18388205	3.0627378	21	4 1.3	20.2
519066 2010 KE_{115}	15.5	X	243.75423	209.03654	94.63845	13.08395	0.0121281	0.17825239	3.1268891	21	3 11.5	20.2
519067 2010 KN_{119}	16.8	X	334.43474	304.53404	274.48491	6.31858	0.1189791	0.17764044	3.1340661	21	2 25.4	20.9
519068 2010 KS_{126}	15.9	X	236.20230	351.34428	296.83862	15.83343	0.0535533	0.17082703	3.2168562	21	2 2.2	20.8
519069 2010 LN	15.4	X	41.53848	155.63760	108.42152	17.07634	0.1072135	0.19131749	2.9828604	21	8 20.3	19.4
519070 2010 LJ_{2}	16.5	X	302.63449	224.20598	38.62096	15.46855	0.2463510	0.17571790	3.1568847	21	3 2.7	21.3
519071 2010 LF_{7}	16.7	X	335.52958	210.73527	17.94893	12.01712	0.1497234	0.17906172	3.1174599	21	3 13.7	20.6
519072 2010 LC_{11}	16.4	X	278.78335	240.48961	61.29934	9.59581	0.0521233	0.18508288	3.0494760	21	4 12.1	20.8
519073 2010 LZ_{17}	16.2	X	342.93141	314.14340	264.08089	11.47879	0.1051634	0.17938304	3.1137361	21	3 6.9	20.5
519074 2010 LP_{18}	16.5	X	345.81353	16.22996	327.66660	14.45965	0.0842861	0.17811591	3.1284862	21	8 31.1	20.5
519075 2010 LQ_{18}	15.6	X	275.20784	297.19356	257.07429	15.30081	0.0697552	0.15823767	3.3852920	21	—	—
519076 2010 LJ_{23}	16.2	X	221.19678	267.06037	257.37925	17.91268	0.0711739	0.22653136	2.6651224	21	11 7.7	20.2
519077 2010 LR_{24}	15.9	X	148.29948	281.58850	97.63318	9.67799	0.0265542	0.17288263	3.1913061	21	2 17.2	20.5
519078 2010 LB_{26}	16.4	X	48.63639	78.42873	92.86676	18.47708	0.0325280	0.18540646	3.0459269	21	4 26.8	20.9
519079 2010 LS_{32}	16.1	X	29.36589	71.92896	190.54589	18.60994	0.1042098	0.17257570	3.1950889	21	7 22.1	20.6
519080 2010 LM_{36}	15.8	X	83.67197	85.65870	332.31132	25.23264	0.2828853	0.17187679	3.2037446	21	2 19.8	19.9
519081 2010 LV_{36}	16.7	X	164.60791	359.87981	263.85975	9.23903	0.1057000	0.23303479	2.6153042	21	—	—
519082 2010 LZ_{46}	15.9	X	165.63713	307.69596	251.48151	14.11158	0.0730751	0.18902906	3.0068862	21	10 13.1	20.6
519083 2010 LH_{49}	16.1	X	330.48641	289.28788	91.19561	13.88680	0.1288974	0.18080954	3.0973372	21	10 2.5	20.1
519084 2010 LU_{51}	16.7	X	307.60720	259.16756	132.67105	3.15265	0.2175642	0.17533514	3.1614773	21	8 19.7	20.4
519085 2010 LT_{54}	15.7	X	305.35291	59.56619	332.22250	17.30931	0.0847727	0.17765412	3.1339052	21	9 1.4	19.9
519086 2010 LR_{57}	16.1	X	322.97748	307.06000	46.97354	15.03049	0.1805628	0.17358201	3.1827284	21	8 6.2	20.1
519087 2010 LO_{69}	17.4	X	276.75217	148.47560	4.64148	13.99689	0.0334041	0.23603932	2.5930634	21	—	—
519088 2010 LY_{77}	17.0	X	202.08680	308.03620	190.95031	3.34199	0.1743428	0.21684359	2.7439213	21	9 7.2	21.4
519089 2010 LC_{78}	16.1	X	286.93214	125.53163	135.85122	10.07441	0.0382851	0.17531435	3.1617273	21	3 4.7	20.6
519090 2010 LC_{83}	15.9	X	27.36186	162.67939	323.41440	15.69539	0.1004581	0.16983616	3.2293561	21	1 28.7	19.9
519091 2010 LO_{83}	15.7	X	277.83283	152.99507	123.06212	27.91110	0.1642738	0.17201241	3.2020604	21	2 26.0	20.8
519092 2010 LA_{87}	15.5	X	287.33622	121.83577	124.70280	23.49438	0.0588587	0.17055179	3.2203162	21	2 12.9	20.2
519093 2010 LT_{87}	16.0	X	208.06160	334.52615	44.33132	11.49325	0.1196072	0.18696708	3.0289536	21	4 21.6	20.8
519094 2010 LU_{89}	15.7	X	266.28665	215.11961	242.39819	8.08559	0.1033400	0.18337154	3.0684197	21	9 28.2	20.1
519095 2010 LV_{89}	16.9	X	53.23975	2.65336	326.26683	6.46319	0.0840941	0.19132653	2.9827664	21	11 18.8	21.1
519096 2010 LD_{92}	16.2	X	70.40209	271.48856	244.64866	8.03930	0.0946902	0.18690861	3.0295852	21	5 4.9	20.3
519097 2010 LF_{93}	16.8	X	140.40577	180.45753	43.14072	8.60322	0.1605602	0.21682649	2.7440656	21	10 26.8	21.2
519098 2010 LY_{94}	16.3	X	133.82264	191.52654	143.29424	22.22629	0.1636824	0.21269785	2.7794614	21	—	—
519099 2010 LV_{100}	15.9	X	130.03419	98.35835	68.91816	19.19001	0.0766995	0.16910532	3.2386539	21	8 4.0	21.1
519100 2010 LH_{101}	16.2	X	270.14282	166.35031	128.90316	16.57479	0.0081907	0.17961886	3.1110101	21	4 2.6	20.8
519101 2010 LY_{102}	15.8	X	276.20890	262.27365	150.74916	16.26715	0.2094011	0.17092444	3.2156339	21	8 1.4	20.5
519102 2010 LD_{114}	16.4	X	226.76176	265.93016	228.15925	12.16737	0.0633958	0.18423723	3.0588002	21	10 1.7	21.1
519103 2010 LD_{125}	16.3	X	320.95220	223.09186	146.66865	6.35104	0.1640860	0.17475276	3.1684974	21	8 20.3	20.0
519104 2010 LE_{128}	15.9	X	214.02079	192.49524	168.57791	15.66274	0.0789578	0.18169299	3.0872889	21	4 8.7	20.7
519105 2010 LX_{129}	16.1	X	109.10393	84.11623	150.97581	9.38082	0.0646508	0.18229021	3.0805422	21	10 1.3	20.7
519106 2010 LS_{135}	16.6	X	336.37880	118.91861	87.80194	2.12010	0.1420882	0.17333820	3.1857122	21	2 14.6	20.7
519107 2010 MU_{3}	16.7	X	62.10303	180.60783	118.31235	11.85073	0.1031669	0.19518679	2.9433084	21	11 3.1	21.0
519108 2010 MQ_{4}	17.6	X	236.73718	59.74669	224.13314	11.23289	0.2551682	0.23704971	2.5856899	21	1 11.6	22.4
519109 2010 MN_{9}	16.3	X	272.47990	149.44763	151.94819	19.99004	0.1377026	0.17735628	3.1374128	21	3 24.8	21.1
519110 2010 MA_{10}	16.6	X	344.44965	239.17288	156.17244	16.23103	0.0972380	0.18714602	3.0270225	21	11 12.2	20.7
519111 2010 MQ_{15}	17.0	X	87.87828	129.54166	129.38494	5.72374	0.0697851	0.21211786	2.7845257	21	10 10.2	21.0
519112 2010 MZ_{21}	16.2	X	277.83881	156.32275	158.51559	20.75723	0.1184054	0.18245616	3.0786739	21	4 19.6	20.9
519113 2010 MO_{22}	15.9	X	43.30731	263.29374	10.29650	10.07300	0.0928547	0.17529130	3.1620044	21	9 1.5	20.1
519114 2010 MS_{24}	15.6	X	268.72087	245.88068	182.58787	26.79820	0.0943171	0.17552106	3.1592445	21	8 26.9	20.3
519115 2010 MA_{25}	16.8	X	112.38658	297.76958	334.27555	8.30033	0.0490853	0.19145440	2.9814382	21	11 13.3	21.3
519116 2010 MR_{27}	16.7	X	320.04813	268.02003	140.22733	9.86489	0.1209194	0.18257967	3.0772853	21	10 18.4	20.5
519117 2010 MB_{29}	17.1	X	333.37223	91.41391	148.46380	12.20867	0.1873365	0.17742886	3.1365572	21	3 18.5	20.9
519118 2010 MR_{30}	16.0	X	28.77726	27.00142	281.53477	13.22408	0.0849277	0.17895961	3.1186457	21	9 13.9	20.3
519119 2010 MF_{34}	16.8	X	150.47539	186.11905	120.57820	15.45431	0.1673679	0.21065511	2.7974010	21	—	—
519120 2010 MZ_{34}	15.9	X	210.19506	24.07583	44.77314	12.56681	0.0232152	0.19775721	2.9177484	21	6 27.9	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519121 2010 MM_{39}	16.5	X	39.25195	118.01665	154.95376	10.26583	0.1945914	0.17630177	3.1499109	21	9 6.5	20.3
519122 2010 MP_{41}	17.1	X	223.33479	90.14675	33.28890	7.85058	0.1738419	0.21771342	2.7366079	21	9 12.4	21.4
519123 2010 MS_{42}	16.3	X	276.61727	262.14404	18.04959	13.43865	0.2279830	0.17036326	3.2226917	21	2 25.3	21.5
519124 2010 MP_{45}	16.9	X	16.86846	157.61507	48.92530	3.19476	0.0339450	0.18308929	3.0715724	21	4 20.3	20.9
519125 2010 MD_{46}	17.3	X	224.32971	132.21533	180.65996	11.80444	0.2876676	0.23202042	2.6229212	21	2 5.4	22.2
519126 2010 ML_{53}	15.8	X	227.24052	32.42972	303.27108	11.10447	0.1223665	0.17709728	3.1404710	21	3 13.5	21.0
519127 2010 ML_{56}	15.7	X	26.15343	250.33016	267.95351	9.34390	0.0760011	0.17462658	3.1700235	21	2 27.7	19.9
519128 2010 MX_{60}	16.1	X	257.21575	69.92535	228.37442	15.61913	0.0842359	0.17384460	3.1795226	21	3 2.1	21.2
519129 2010 MT_{63}	17.1	X	180.60159	354.37107	307.81063	3.35304	0.1882551	0.21730926	2.7400000	21	—	—
519130 2010 MW_{66}	16.5	X	327.76788	76.05246	282.68450	14.48123	0.1551652	0.17307300	3.1889656	21	8 12.7	20.5
519131 2010 MC_{76}	17.1	X	335.11692	143.57636	324.85364	11.82813	0.1526672	0.24046650	2.5611381	21	—	—
519132 2010 MB_{80}	16.6	X	0.90227	32.37872	42.74654	7.67266	0.0874608	0.19911668	2.9044525	21	—	—
519133 2010 MQ_{82}	15.7	X	82.98008	311.09493	284.69219	16.98127	0.1608005	0.17570158	3.1570801	21	9 2.3	20.7
519134 2010 MR_{86}	17.1	X	151.67077	131.75019	71.36681	12.33030	0.0563667	0.21443728	2.7644104	21	10 15.6	21.3
519135 2010 MB_{96}	16.0	X	248.37139	244.38436	102.00886	17.28522	0.1019280	0.18339091	3.0682036	21	4 30.5	20.9
519136 2010 MU_{97}	16.9	X	208.74461	119.93803	126.52027	8.63454	0.1843259	0.21109398	2.7935224	21	—	—
519137 2010 MY_{97}	16.6	X	333.69176	55.13992	338.09044	13.99721	0.0250829	0.18300583	3.0725062	21	10 13.2	21.0
519138 2010 MT_{99}	17.4	X	53.12723	96.88654	175.18763	6.46488	0.2058022	0.20192853	2.8774267	21	9 30.1	21.2
519139 2010 MV_{106}	17.7	X	241.63120	173.12271	124.21287	5.92528	0.1478612	0.23021323	2.6366301	21	2 7.5	21.8
519140 2010 MK_{112}	16.1	X	271.58559	251.40770	126.94219	16.76195	0.0658659	0.17230564	3.1984266	21	7 4.7	20.8
519141 2010 MU_{116}	17.4	X	109.13935	104.62295	186.64711	4.44929	0.0882571	0.21312885	2.7757130	21	12 12.5	21.5
519142 2010 NZ_{3}	16.5	X	43.58176	44.42847	329.87166	4.98394	0.0919994	0.20421938	2.8558676	21	—	—
519143 2010 NC_{10}	16.2	X	262.78363	262.64576	50.61017	15.82386	0.2050087	0.17376780	3.1804594	21	3 26.9	21.4
519144 2010 ND_{14}	15.4	X	165.49720	67.46731	99.32063	16.90936	0.0296180	0.17307159	3.1889829	21	9 13.2	20.3
519145 2010 NG_{16}	16.2	X	357.77155	274.20169	3.58592	14.01067	0.0787046	0.19121103	2.9839675	21	6 24.8	20.3
519146 2010 NL_{16}	16.9	X	92.25891	265.11723	77.74087	5.80802	0.0808087	0.23061242	2.6335865	21	—	—
519147 2010 NQ_{19}	16.9	X	65.93478	182.66758	117.06823	5.07242	0.1435241	0.18577095	3.0419414	21	11 9.6	21.3
519148 2010 NN_{23}	17.7	X	201.71517	67.38160	178.86938	16.91686	0.1584649	0.23274095	2.6175050	21	—	—
519149 2010 NL_{42}	16.5	X	181.08370	270.16464	324.70636	6.18638	0.2725475	0.20135871	2.8828526	21	12 5.8	21.7
519150 2010 NT_{42}	16.1	X	356.81485	238.81947	96.10357	14.28421	0.1851593	0.17515488	3.1636460	21	9 18.2	19.8
519151 2010 NR_{43}	16.3	X	331.89336	87.18558	329.97746	16.34480	0.2201917	0.18279852	3.0748287	21	11 4.9	19.8
519152 2010 NC_{46}	16.3	X	7.83242	216.90479	153.97033	11.23042	0.0304177	0.18472772	3.0533834	21	11 9.4	20.6
519153 2010 NG_{47}	16.0	X	287.36079	346.68878	50.68590	16.78028	0.1007398	0.16931721	3.2359513	21	8 21.4	20.7
519154 2010 NO_{50}	16.4	X	326.56667	255.27608	142.09406	18.84013	0.0939696	0.17925637	3.1152027	21	10 18.2	20.6
519155 2010 NS_{64}	16.3	X	27.79548	259.54127	87.99694	4.77763	0.2468247	0.21068139	2.7971683	21	12 8.5	19.7
519156 2010 NZ_{77}	16.4	X	337.23373	358.96417	286.72063	2.33696	0.1087495	0.18586371	3.0409292	21	5 30.8	20.1
519157 2010 NM_{78}	16.5	X	307.74357	100.50454	172.45331	25.47559	0.2509716	0.17216453	3.2001740	21	3 12.7	20.9
519158 2010 NW_{80}	17.3	X	150.42275	121.66110	321.83416	11.67044	0.1817390	0.23333980	2.6130246	21	5 10.3	21.7
519159 2010 NX_{88}	17.5	X	201.26144	156.86563	138.34896	2.30315	0.1958222	0.22039099	2.7143978	21	1 2.4	22.1
519160 2010 NY_{97}	15.9	X	329.81470	94.07968	274.44077	8.90349	0.0876232	0.17345286	3.1843080	21	9 4.1	20.1
519161 2010 NU_{102}	16.1	X	282.16572	127.11482	299.64079	7.84459	0.0547997	0.17483981	3.1674456	21	9 15.6	20.5
519162 2010 NG_{104}	16.3	X	66.70125	175.85094	91.06538	11.85297	0.1810957	0.17806202	3.1291173	21	10 10.1	20.9
519163 2010 NB_{105}	16.0	X	279.01470	136.69004	300.81462	9.35716	0.0441279	0.17709402	3.1405095	21	9 25.6	20.5
519164 2010 NR_{105}	16.4	X	82.40464	121.91121	136.56858	15.60030	0.2508296	0.18192038	3.0847157	21	10 24.9	21.5
519165 2010 NN_{110}	16.4	X	20.24084	57.69944	284.06525	5.96736	0.1450761	0.18141807	3.0904071	21	10 26.7	20.3
519166 2010 NN_{118}	15.8	X	328.14817	54.29068	269.42279	9.35324	0.0167639	0.17610743	3.1522278	21	7 14.1	20.2
519167 2010 OA_{2}	16.3	X	5.95815	10.45540	353.98736	4.44729	0.1467133	0.18165987	3.0876641	21	11 3.1	19.9
519168 2010 OT_{6}	16.2	X	156.44786	95.77711	310.33136	15.12982	0.0925168	0.17364129	3.1820040	21	3 25.4	21.4
519169 2010 OX_{20}	15.8	X	273.24075	138.79428	322.45332	15.28299	0.0941477	0.17919889	3.1158689	21	10 7.9	20.4
519170 2010 OW_{22}	16.0	X	338.61953	88.87444	281.33763	14.33963	0.0689681	0.17514636	3.1637487	21	9 16.9	20.4
519171 2010 OA_{28}	16.2	X	331.85739	46.29744	338.36133	26.57685	0.0746826	0.17604100	3.1530207	21	9 23.0	20.5
519172 2010 OW_{45}	16.5	X	24.61883	265.85443	71.31310	11.24798	0.1086903	0.17983811	3.1084811	21	10 28.9	20.6
519173 2010 OO_{55}	16.5	X	284.04759	271.36219	181.17020	9.83701	0.1975097	0.17647833	3.1478097	21	10 4.9	20.4
519174 2010 OM_{64}	16.6	X	32.14638	213.78530	288.30931	10.66923	0.1341133	0.21765131	2.7371285	21	2 8.9	19.6
519175 2010 OC_{67}	17.1	X	251.75669	104.69653	103.79805	12.76730	0.0776555	0.23618371	2.5920065	21	—	—
519176 2010 OW_{67}	16.8	X	350.87983	98.09758	209.01446	13.71103	0.0864605	0.19299973	2.9655022	21	7 19.6	20.8
519177 2010 OR_{83}	16.6	X	25.89570	203.98827	138.66281	6.37794	0.0606345	0.17962137	3.1109812	21	10 30.6	20.8
519178 2010 OG_{85}	16.2	X	318.23862	93.36235	339.96161	15.15481	0.1180589	0.18197839	3.0840601	21	11 6.4	20.3
519179 2010 OQ_{88}	15.8	X	325.19343	233.38210	139.78945	12.85514	0.0817274	0.17043217	3.2218230	21	9 10.4	20.0
519180 2010 OD_{97}	16.1	X	357.11737	87.18783	252.53390	11.24171	0.0556545	0.17085029	3.2165643	21	9 6.8	20.6
519181 2010 OC_{107}	16.2	X	171.04985	102.24767	315.07440	13.09970	0.0313106	0.17777292	3.1325089	21	4 21.5	21.0
519182 2010 OV_{109}	16.8	X	225.70195	25.77075	244.16849	10.87863	0.1563551	0.21460549	2.7629657	21	—	—
519183 2010 OD_{110}	17.8	X	161.97184	79.39408	119.73925	3.18705	0.0645152	0.26742762	2.3859713	21	10 24.1	21.0
519184 2010 OP_{111}	16.1	X	49.29089	295.13454	81.82962	11.43142	0.0846862	0.19313783	2.9640884	21	—	—
519185 2010 OK_{114}	16.2	X	111.46521	269.06818	325.91107	9.01480	0.0398856	0.17246788	3.1964204	21	9 24.5	20.9
519186 2010 OB_{116}	16.2	X	272.84696	184.89806	142.80220	11.71888	0.2143270	0.17470790	3.1690397	21	4 18.1	21.2
519187 2010 OE_{125}	17.0	X	262.98156	337.03608	345.36549	10.67902	0.1499197	0.23656298	2.5892353	21	3 26.9	21.1
519188 2010 PK_{7}	16.0	X	357.27208	44.45992	296.35592	8.96898	0.1032350	0.17121215	3.2120306	21	9 11.2	20.2
519189 2010 PY_{7}	16.2	X	301.69784	304.18194	352.68064	14.47403	0.0274856	0.17852343	3.1237234	21	4 29.3	20.8
519190 2010 PX_{18}	17.4	X	348.05718	54.12681	231.72696	13.62643	0.2417546	0.18359720	3.0659050	21	6 8.8	20.4
519191 2010 PD_{21}	16.3	X	163.77357	288.36269	355.44440	14.08069	0.1502160	0.20148636	2.8816349	21	—	—
519192 2010 PB_{35}	17.2	X	137.72129	238.89371	122.55928	5.40032	0.0813522	0.21138130	2.7909904	21	1 11.4	21.1
519193 2010 PB_{38}	17.6	X	184.26063	103.93514	141.56176	7.94434	0.0404503	0.22546392	2.6735276	21	—	—
519194 2010 PE_{50}	17.0	X	203.34269	313.38390	213.55502	15.56471	0.2080252	0.21582589	2.7525403	21	10 9.4	21.6
519195 2010 PF_{50}	17.2	X	245.68245	49.82245	164.30851	19.11773	0.1891576	0.23461683	2.6035341	21	—	—
519196 2010 PR_{68}	16.2	X	348.16443	260.67040	348.77527	17.03477	0.0959573	0.17710835	3.1403402	21	4 23.8	20.5
519197 2010 PF_{74}	17.2	X	203.18580	166.71173	151.57675	14.80742	0.2522279	0.23012054	2.6373380	21	1 29.5	21.9
519198 2010 PZ_{77}	17.0	X	208.11359	102.83493	229.85152	25.56166	0.3719827	0.22881455	2.6473638	21	2 10.9	22.7
519199 2010 PM_{81}	16.3	X	354.18785	86.34181	200.02797	8.98114	0.1251031	0.18619346	3.0373378	21	6 28.4	20.0
519200 2010 PR_{81}	16.6	X	312.10702	55.25068	349.81903	17.04963	0.1864669	0.17882250	3.1202396	21	9 17.7	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519201 2010 PU_{81}	16.6	X	99.40415	146.71591	103.37996	2.63861	0.0698502	0.18382372	3.0633857	21	10 8.3	21.0
519202 2010 RH_{19}	16.9	X	173.80967	148.33844	183.41228	13.47668	0.2680959	0.22559124	2.6725216	21	1 23.5	21.8
519203 2010 RA_{26}	16.3	X	24.58552	220.84558	154.06938	11.06153	0.1196945	0.19301262	2.9653702	21	12 16.4	20.3
519204 2010 RU_{46}	16.5	X	246.26728	87.01941	240.90410	13.44776	0.1382322	0.24045737	2.5612029	21	3 14.4	20.8
519205 2010 RY_{100}	16.8	X	27.68080	10.56189	322.11838	4.12186	0.1518895	0.18243633	3.0788970	21	10 28.2	20.7
519206 2010 RK_{137}	16.1	X	325.77463	76.16296	290.85887	8.19897	0.0946507	0.17436370	3.1732089	21	8 27.8	20.2
519207 2010 RS_{172}	17.5	X	114.86804	62.47633	335.97582	2.27571	0.1052493	0.22230865	2.6987655	21	1 31.2	21.0
519208 2010 RL_{189}	16.3	X	24.96708	125.05595	193.56873	11.09748	0.0706897	0.17629219	3.1500250	21	9 26.4	20.4
519209 2010 RO_{189}	17.8	X	240.30010	27.31690	80.65159	2.57283	0.1387561	0.25877878	2.4388417	21	9 16.3	21.0
519210 2010 SH_{44}	16.4	X	258.99175	78.08519	15.95106	18.29321	0.1853491	0.17353900	3.1832542	21	9 12.5	21.2
519211 2010 SJ_{44}	16.8	X	301.74608	42.31014	32.32681	8.61036	0.1115397	0.18230595	3.0803648	21	10 21.0	20.7
519212 2010 SR_{44}	17.5	X	72.95504	283.48794	199.63473	2.39411	0.1152985	0.22806123	2.6531903	21	3 24.0	20.7
519213 2010 TY_{61}	17.0	X	179.35796	303.08596	31.28449	13.60121	0.2733419	0.22359293	2.6884213	21	2 7.8	22.0
519214 2010 TP_{81}	16.3	X	7.04689	312.55105	17.47816	9.39867	0.1232871	0.17815533	3.1280247	21	9 21.8	20.1
519215 2010 TL_{135}	17.2	X	216.17176	197.52264	79.29749	6.26172	0.0090665	0.21395597	2.7685547	21	—	—
519216 2010 TU_{173}	15.9	X	335.38862	227.74867	151.34398	9.53728	0.0929697	0.17382811	3.1797237	21	10 3.8	19.9
519217 2010 TE_{194}	16.1	X	303.94204	351.78459	20.98254	11.12943	0.0427476	0.16900579	3.2399253	21	8 17.0	20.7
519218 2010 TM_{194}	16.9	X	247.25946	175.75361	63.05724	10.03817	0.0675181	0.20649341	2.8348620	21	—	—
519219 2010 TN_{194}	17.3	X	173.82936	166.02964	84.14095	5.19339	0.0763250	0.28363993	2.2941640	21	—	—
519220 2010 TP_{194}	18.4	X	348.65342	84.32709	344.84260	6.87867	0.0804582	0.28070834	2.3101092	21	—	—
519221 2010 UM_{109}	16.7	X	308.99350	208.94529	193.58820	1.41069	0.1310048	0.17222842	3.1993826	21	9 16.3	20.6
519222 2010 UQ_{109}	15.9	X	335.03635	301.41926	72.84057	12.46226	0.1040035	0.16989257	3.2286412	21	9 30.6	20.1
519223 2010 UT_{109}	17.7	X	146.69151	271.83561	352.08432	6.74242	0.0922003	0.27873919	2.3209762	21	12 29.8	21.1
519224 2010 UW_{109}	15.4	X	126.15474	356.67765	225.16107	15.93083	0.0827205	0.17028408	3.2236906	21	9 28.2	20.5
519225 2010 VT_{26}	15.7	X	244.68760	295.03808	245.57713	15.23741	0.1765175	0.18011981	3.1052392	21	12 5.1	20.1
519226 2010 VY_{34}	16.1	X	354.04018	34.87627	304.59249	9.15558	0.1408646	0.18048459	3.1010537	21	9 6.6	19.8
519227 2010 VF_{62}	17.2	X	145.99600	153.40757	280.73008	3.91184	0.2216545	0.22424300	2.6832231	21	4 30.8	21.6
519228 2010 VO_{81}	16.7	X	134.19838	84.61957	302.83355	4.89941	0.0893046	0.21531711	2.7568746	21	2 8.0	20.5
519229 2010 VB_{115}	17.3	X	282.01562	37.44538	210.39679	12.44194	0.1029597	0.21597783	2.7512492	21	1 21.4	21.6
519230 2010 VR_{124}	16.8	X	69.58444	18.46973	288.75099	2.38568	0.1072199	0.17970797	3.1099816	21	11 14.7	21.2
519231 2010 VL_{140}	16.8	X	26.56438	190.70641	212.69304	9.46527	0.0476069	0.18963176	3.0005117	21	—	—
519232 2010 VQ_{182}	16.4	X	14.13355	92.56229	264.31713	8.05887	0.1239398	0.18002133	3.1063715	21	11 3.4	20.3
519233 2010 VD_{190}	18.0	X	271.58214	66.85923	272.15572	0.71285	0.1907201	0.23989102	2.5652324	21	4 23.9	21.8
519234 2010 VN_{226}	17.0	X	187.77876	126.56536	248.41017	5.26040	0.0433883	0.22365461	2.6879271	21	3 18.4	20.8
519235 2010 VO_{226}	16.3	X	285.44229	215.78641	25.39129	13.85852	0.1432369	0.21940396	2.7225325	21	1 18.8	20.6
519236 2010 VS_{226}	16.8	X	194.66730	206.72396	68.21322	7.01390	0.0348614	0.20259646	2.8710989	21	—	—
519237 2010 VE_{227}	17.4	X	335.36113	284.17403	92.21558	8.03065	0.1071492	0.26273590	2.4142919	21	10 16.2	19.9
519238 2010 VG_{227}	16.3	X	128.63436	303.26480	85.73378	7.05470	0.0322311	0.21149882	2.7899564	21	1 29.2	20.1
519239 2010 VJ_{227}	17.8	X	284.53732	71.84794	105.23803	5.65125	0.0277349	0.27948182	2.3168629	21	—	—
519240 2010 VL_{227}	17.0	X	353.70919	82.15951	103.24560	8.46495	0.1625097	0.21312686	2.7757303	21	2 2.9	20.2
519241 2010 VU_{227}	17.4	X	221.24940	96.14924	246.49725	7.10164	0.1686861	0.22792347	2.6542593	21	3 11.3	21.9
519242 2010 VV_{227}	17.6	X	71.11771	114.99584	83.90601	9.02317	0.0616242	0.23926025	2.5697390	21	6 26.3	20.7
519243 2010 WB_{66}	16.3	X	13.48525	211.17541	82.82434	15.18012	0.0397474	0.24156130	2.5533939	21	8 15.9	19.7
519244 2010 XB_{75}	17.5	X	175.95560	355.29579	98.65772	14.82577	0.1214421	0.23521985	2.5990825	21	6 19.7	21.5
519245 2010 XU_{87}	16.2	X	232.91532	272.50885	242.97913	14.58804	0.0582838	0.17578461	3.1560860	21	11 5.4	20.8
519246 2010 XE_{92}	16.5	X	192.11294	149.39940	103.62493	10.72418	0.0415099	0.18056868	3.1000909	21	—	—
519247 2010 XL_{92}	16.9	X	286.73091	77.18765	71.58926	16.27066	0.2269109	0.18069728	3.0986199	21	12 14.3	20.5
519248 2010 XP_{92}	17.2	X	54.06464	22.78117	229.98012	8.24596	0.0749504	0.24538876	2.5267732	21	8 15.0	20.5
519249 2010 XV_{92}	17.8	X	150.28849	72.49154	61.80691	5.46530	0.1044976	0.23074748	2.6325587	21	7 14.9	21.8
519250 2010 XW_{92}	18.5	X	297.13070	97.63607	38.14204	3.18951	0.0854206	0.27220967	2.3579451	21	—	—
519251 2010 XX_{92}	16.9	X	21.86061	352.38404	87.91245	9.85439	0.0753537	0.18724664	3.0259380	21	—	—
519252 2010 XA_{93}	16.6	X	43.57469	154.87653	271.43410	7.77739	0.0744868	0.18882130	3.0090915	21	—	—
519253 2010 XC_{93}	17.8	X	237.16064	168.12432	79.53734	7.68951	0.0832787	0.29100282	2.2553013	21	—	—
519254 2010 XF_{93}	17.3	X	222.91332	199.26421	110.52786	3.10259	0.0380723	0.20437424	2.8544249	21	2 11.8	21.4
519255 2010 XJ_{93}	16.5	X	210.50955	303.22973	274.10055	2.96547	0.0884499	0.17418365	3.1753953	21	12 20.9	21.3
519256 2011 AB_{9}	15.9	X	198.07207	310.30604	295.16454	10.15074	0.2439427	0.17514091	3.1638142	21	12 29.5	21.3
519257 2011 AQ_{15}	16.7	X	337.47207	336.94384	103.45404	12.72085	0.2229303	0.18239043	3.0794135	21	12 27.7	19.7
519258 2011 AL_{48}	16.7	X	330.69914	345.49509	96.77377	11.97039	0.0704929	0.17365792	3.1818008	21	12 13.5	20.8
519259 2011 AU_{58}	16.0	X	163.09910	166.76653	122.03671	10.46283	0.0765663	0.18060518	3.0996732	21	—	—
519260 2011 AM_{69}	16.2	X	91.35591	237.70697	101.36048	11.56870	0.0547473	0.17768094	3.1335899	21	—	—
519261 2011 AF_{81}	16.5	X	76.35677	259.28692	101.69455	10.46919	0.0555715	0.18011497	3.1052949	21	—	—
519262 2011 AC_{82}	17.8	X	5.67016	234.68126	136.21630	2.05530	0.1232861	0.26064021	2.4272161	21	11 28.3	20.4
519263 2011 AF_{82}	17.7	X	51.98755	4.52289	344.68431	4.80077	0.1260492	0.26694252	2.3888610	21	—	—
519264 2011 AH_{82}	17.0	X	111.45209	137.47925	73.09681	6.20508	0.2019105	0.22708414	2.6607956	21	9 20.7	21.3
519265 2011 AJ_{82}	16.5	X	222.01370	160.82760	37.60387	1.74674	0.0872019	0.17122833	3.2118281	21	12 10.7	21.3
519266 2011 AK_{82}	17.2	X	124.40545	311.73758	180.59252	9.07012	0.1455304	0.21635091	2.7480854	21	6 17.4	21.5
519267 2011 AM_{82}	17.5	X	325.56946	13.70834	19.51763	5.30641	0.1294126	0.25353261	2.4723702	21	10 15.5	19.7
519268 2011 AP_{82}	17.1	X	114.27284	244.53938	328.97001	12.71113	0.1234630	0.23526750	2.5987316	21	9 14.2	21.0
519269 2011 AX_{82}	18.4	X	3.31341	210.16424	293.51901	3.73979	0.0733289	0.28864808	2.2675503	21	—	—
519270 2011 AY_{82}	17.7	X	261.01610	279.46186	152.75866	6.60532	0.1074222	0.24531873	2.5272541	21	8 27.5	20.9
519271 2011 AZ_{82}	18.3	X	298.56360	78.07202	24.12568	1.83069	0.1452610	0.26083311	2.4260192	21	12 5.6	20.5
519272 2011 AF_{83}	18.4	X	302.21328	350.95142	125.59538	2.26729	0.1276425	0.26561776	2.3967973	21	—	—
519273 2011 BJ_{37}	17.2	X	48.52466	278.91524	283.41643	3.36199	0.0384234	0.21886579	2.7269936	21	5 25.9	20.8
519274 2011 BR_{42}	16.1	X	44.53669	10.15322	68.30786	10.56886	0.0503349	0.18852185	3.0122771	21	—	—
519275 2011 BU_{58}	17.6	X	312.60863	344.18738	328.29431	2.75668	0.0681756	0.22318096	2.6917288	21	5 31.9	21.0
519276 2011 BA_{166}	17.8	X	228.03776	143.23561	328.44334	13.78619	0.0600124	0.24570393	2.5246120	21	9 10.3	21.4
519277 2011 BB_{166}	16.6	X	351.74803	352.04133	126.42775	14.69156	0.1216129	0.18584216	3.0411643	21	—	—
519278 2011 BC_{166}	17.0	X	76.03816	292.25315	301.55489	4.00931	0.0785830	0.23379217	2.6096529	21	8 22.6	20.5
519279 2011 BE_{166}	18.1	X	326.40276	103.29465	332.22290	10.50293	0.1160138	0.26335217	2.4105239	21	12 22.1	20.7
519280 2011 BH_{166}	17.7	X	171.66285	199.88939	24.94545	2.03286	0.1318559	0.25599887	2.4564656	21	11 29.9	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519281 2011 BL_{166}	17.5	X	23.28993	70.54868	151.41779	4.67234	0.1410389	0.21303626	2.7765171	21	5 22.9	20.5
519282 2011 BS_{166}	16.8	X	54.15688	288.91261	305.85329	12.03714	0.1348513	0.22330261	2.6907511	21	8 1.6	20.1
519283 2011 BT_{166}	17.2	X	77.28253	109.49717	144.51386	12.41524	0.1493228	0.23029109	2.6360358	21	10 5.1	21.0
519284 2011 BW_{166}	17.5	X	308.17749	63.76264	308.94833	12.71015	0.1935201	0.24134806	2.5548976	21	8 1.2	20.2
519285 2011 BZ_{166}	17.9	X	144.76904	222.75619	222.67775	3.82817	0.1394444	0.21619858	2.7493762	21	5 9.2	22.0
519286 2011 BF_{167}	17.6	X	350.45409	92.24666	206.75311	4.12419	0.0466136	0.22650745	2.6653100	21	7 12.1	21.0
519287 2011 BL_{167}	17.6	X	286.07793	268.27332	276.89256	6.43905	0.0495159	0.27413669	2.3468821	21	—	—
519288 2011 BP_{167}	17.3	X	105.04488	352.77348	194.10432	6.26991	0.0603142	0.22553380	2.6729753	21	7 24.4	21.1
519289 2011 BN_{168}	17.9	X	240.18500	126.91554	294.95942	8.13240	0.0799678	0.23278603	2.6171671	21	7 20.5	21.5
519290 2011 BS_{168}	17.0	X	193.83343	332.75266	66.22295	6.24100	0.1509233	0.21759138	2.7376311	21	4 30.1	21.4
519291 2011 BT_{168}	17.8	X	192.86518	134.99190	321.23859	2.09554	0.0740915	0.23062291	2.6335066	21	7 11.1	21.6
519292 2011 BF_{169}	17.4	X	52.52942	177.83551	126.53121	13.99210	0.1420205	0.24375739	2.5380345	21	11 11.5	21.0
519293 2011 CG_{38}	17.7	X	190.76387	298.60387	333.95235	6.68768	0.1017921	0.27343426	2.3508997	21	—	—
519294 2011 CO_{92}	17.2	X	325.21471	26.84001	276.21297	8.25304	0.1705710	0.21929845	2.7234057	21	5 23.8	20.4
519295 2011 CU_{120}	17.4	X	222.00905	319.06617	304.12781	5.89191	0.0902439	0.27434494	2.3456943	21	—	—
519296 2011 CX_{120}	16.9	X	242.30072	183.76115	175.31467	6.54427	0.0607739	0.21559386	2.7545149	21	5 5.1	20.9
519297 2011 CY_{120}	16.9	X	245.71676	49.93505	173.64678	2.58204	0.0806935	0.17655764	3.1468669	21	—	—
519298 2011 CD_{121}	16.4	X	192.77354	317.45640	337.09198	3.25345	0.1451976	0.17405885	3.1769129	21	—	—
519299 2011 CE_{121}	17.5	X	342.14639	196.90793	330.27717	5.28150	0.0973688	0.27991218	2.3144876	21	—	—
519300 2011 CM_{121}	16.6	X	281.57505	233.48360	133.85741	15.30686	0.1069164	0.22809781	2.6529066	21	6 27.2	20.3
519301 2011 DU_{7}	17.9	X	356.63023	149.49206	69.92615	8.26135	0.1298496	0.29482757	2.2357539	21	3 18.5	20.1
519302 2011 DR_{12}	18.2	X	16.68822	28.25901	158.22477	5.87357	0.1221189	0.29353829	2.2422957	21	3 1.5	20.0
519303 2011 DL_{45}	17.3	X	313.97280	158.96136	348.30788	6.15049	0.0876544	0.27055004	2.3675781	21	—	—
519304 2011 DG_{53}	18.3	X	296.73047	135.08135	39.97325	4.64721	0.1211603	0.27032636	2.3688840	21	—	—
519305 2011 DH_{53}	16.9	X	259.66110	134.77567	233.26832	5.92030	0.0461741	0.21480674	2.7612397	21	6 7.8	20.6
519306 2011 DN_{53}	17.5	X	143.75406	129.55119	119.33350	1.32564	0.0564463	0.24660023	2.5184909	21	12 1.9	21.2
519307 2011 EF_{15}	20.1	X	313.06692	232.51205	359.27470	0.26459	0.4427513	0.28133634	2.3066701	21	—	—
519308 2011 EJ_{62}	17.0	X	21.58034	195.14423	113.41261	10.94336	0.1545129	0.22996149	2.6385539	21	10 1.6	20.1
519309 2011 EP_{72}	18.0	X	346.41578	340.45998	238.68429	0.90875	0.1532891	0.29042088	2.2583131	21	2 18.7	20.1
519310 2011 EE_{89}	17.0	X	267.13131	135.93813	133.33029	3.84928	0.0381263	0.18695291	3.0291067	21	2 15.7	21.2
519311 2011 EG_{89}	17.3	X	74.27909	74.66746	130.34839	4.13406	0.0282383	0.21486154	2.7607702	21	7 4.2	21.1
519312 2011 EH_{89}	16.5	X	329.80463	19.80440	175.61963	5.58116	0.0591671	0.18479778	3.0526116	21	1 29.3	20.6
519313 2011 EK_{89}	17.1	X	147.64616	143.45555	7.89347	7.51539	0.0799809	0.21933798	2.7230785	21	8 3.7	21.2
519314 2011 EL_{89}	17.4	X	117.75251	231.02501	358.18321	7.71774	0.0989222	0.23270295	2.6177899	21	10 7.9	21.3
519315 2011 EN_{89}	17.7	X	56.40832	45.30946	224.53044	1.38024	0.0966843	0.23000617	2.6382122	21	9 16.6	21.0
519316 2011 ER_{89}	16.3	X	165.39214	286.87372	16.19967	8.72989	0.1243825	0.17180775	3.2046029	21	—	—
519317 2011 ES_{89}	17.1	X	311.37679	211.95745	158.49425	10.04769	0.0834378	0.23201712	2.6229461	21	8 17.9	20.2
519318 2011 EV_{89}	18.0	X	158.66261	192.84167	12.69228	6.34793	0.1413695	0.23970675	2.5665469	21	10 21.9	22.2
519319 2011 EY_{89}	17.7	X	244.32232	197.69082	10.33988	6.04965	0.0400844	0.26311900	2.4119478	21	—	—
519320 2011 EC_{90}	17.6	X	209.42463	169.86077	349.10953	9.58477	0.1112431	0.24105420	2.5569737	21	10 14.2	21.4
519321 2011 ED_{90}	17.6	X	5.97659	124.84481	352.21632	7.98599	0.1093618	0.27200757	2.3591129	21	—	—
519322 2011 EE_{90}	17.9	X	179.09163	28.51134	14.54628	6.75619	0.0307833	0.29467543	2.2365233	21	4 7.3	20.4
519323 2011 EF_{90}	17.0	X	252.42623	160.81827	232.39354	3.18768	0.0847063	0.21474239	2.7617913	21	6 26.6	20.8
519324 2011 FA_{16}	16.1	X	276.92587	123.76159	113.73042	6.17772	0.1080191	0.17480250	3.1678963	21	1 13.8	20.9
519325 2011 FT_{20}	17.6	X	44.75097	255.77897	23.04146	6.01641	0.0345623	0.22880600	2.6474297	21	9 5.9	21.0
519326 2011 FB_{52}	17.5	X	312.49525	168.71084	0.46610	5.99146	0.0700679	0.27181603	2.3602210	21	—	—
519327 2011 FV_{62}	17.2	X	30.57510	131.85876	194.56131	11.47265	0.0966579	0.23388012	2.6089986	21	10 28.4	20.4
519328 2011 FS_{63}	17.8	X	176.93550	14.51635	224.05608	1.65863	0.0462097	0.25406378	2.4689230	21	12 28.8	21.2
519329 2011 FA_{99}	16.9	X	286.58763	297.93447	350.66211	6.05132	0.2321386	0.19124074	2.9836584	21	3 8.5	21.3
519330 2011 FS_{107}	17.4	X	291.56314	164.11554	215.46544	6.45443	0.1465882	0.22687473	2.6624327	21	7 19.6	20.8
519331 2011 FY_{138}	16.5	X	274.46977	52.11875	190.52068	11.63311	0.1517156	0.18193453	3.0845558	21	1 9.9	21.5
519332 2011 FE_{159}	17.0	X	130.45220	151.08891	35.96072	14.05424	0.1142149	0.22176347	2.7031867	21	9 6.9	21.3
519333 2011 FF_{159}	17.7	X	91.57557	55.45431	198.64958	3.96821	0.1971300	0.22535315	2.6744037	21	10 21.9	21.9
519334 2011 FG_{159}	16.9	X	73.20584	64.14472	179.92817	5.10766	0.0589033	0.22020573	2.7159200	21	8 28.8	20.5
519335 2011 FH_{159}	16.7	X	104.93513	167.64397	55.02341	5.20568	0.0413192	0.22378093	2.6869154	21	9 11.9	20.5
519336 2011 FJ_{159}	17.4	X	310.73608	52.91397	13.77638	15.25048	0.1006639	0.24328156	2.5413428	21	11 1.1	20.4
519337 2011 FK_{159}	17.2	X	8.75528	153.91681	139.37067	5.52271	0.1406296	0.21569784	2.7536296	21	8 6.8	20.0
519338 2011 GW_{2}	16.8	X	88.22382	193.47790	71.09454	14.27960	0.1503298	0.22937105	2.6430800	21	10 31.5	20.9
519339 2011 GN_{46}	18.2	X	303.20672	21.82682	208.11153	23.51269	0.1647513	0.27768985	2.3268196	21	1 2.7	22.1
519340 2011 GW_{89}	16.9	X	162.61469	71.43459	60.64780	5.68130	0.0539368	0.21849767	2.7300557	21	7 24.1	20.9
519341 2011 GX_{89}	17.6	X	110.25216	279.64326	235.17495	3.39647	0.0123319	0.21081853	2.7959551	21	6 12.9	21.4
519342 2011 GA_{90}	17.4	X	230.23924	306.83028	179.80286	2.95833	0.1224565	0.23517754	2.5993942	21	9 27.6	21.0
519343 2011 GH_{90}	15.9	X	116.83287	324.19237	56.62980	21.58549	0.1904900	0.17153440	3.2080064	21	2 9.0	21.0
519344 2011 GL_{90}	16.6	X	157.02658	74.66783	28.80848	12.03902	0.0966154	0.21019748	2.8014597	21	6 9.3	21.0
519345 2011 HN_{9}	16.5	X	272.37169	126.67400	118.48099	5.75797	0.2159612	0.17501420	3.1653412	21	1 7.8	21.5
519346 2011 HQ_{12}	17.7	X	268.85470	208.42563	75.12696	8.58426	0.2693896	0.27478767	2.3431741	21	2 3.5	21.7
519347 2011 HQ_{32}	17.7	X	324.71609	165.78020	81.52372	7.05018	0.1391175	0.28673125	2.2776450	21	3 4.7	20.4
519348 2011 HV_{43}	18.7	X	337.14398	78.87367	132.79816	4.92678	0.1354759	0.28306090	2.2972916	21	1 29.2	21.1
519349 2011 HC_{71}	18.6	X	312.80722	193.48585	58.78304	3.91306	0.1814137	0.28636956	2.2795624	21	2 14.5	21.6
519350 2011 HZ_{103}	17.0	X	31.78049	220.72500	46.72929	4.08813	0.1306178	0.21443695	2.7644133	21	8 12.6	20.2
519351 2011 JN_{32}	17.6	X	20.10680	106.85446	56.27884	6.66851	0.1005798	0.28287142	2.2983174	21	2 7.8	19.9
519352 2011 JS_{32}	17.2	X	189.16651	57.85850	271.49745	6.02206	0.1259148	0.25465580	2.4650951	21	1 22.9	21.0
519353 2011 KG_{7}	16.2	X	291.26061	191.97268	146.02218	14.18426	0.2373198	0.19277670	2.9677890	21	5 16.9	20.6
519354 2011 KR_{12}	21.3	X	265.63969	1.54109	20.28190	7.42082	0.3803823	0.97422431	1.0077746	21	4 14.7	20.8
519355 2011 KB_{34}	17.0	X	80.60005	226.98543	106.31497	14.57243	0.1127575	0.23729303	2.5839220	21	—	—
519356 2011 KH_{49}	16.5	X	221.12396	210.46844	160.71387	1.55158	0.1074486	0.19031321	2.9933449	21	4 24.3	21.2
519357 2011 KJ_{49}	16.8	X	31.63444	159.02185	43.47172	10.00168	0.0126202	0.19354816	2.9598976	21	5 2.9	20.8
519358 2011 KK_{49}	16.2	X	263.54484	274.04944	47.62562	9.67616	0.1056368	0.18960466	3.0007976	21	4 10.7	20.6
519359 2011 KM_{49}	16.4	X	306.66209	83.23136	230.76794	11.35699	0.1224064	0.19598455	2.9353158	21	5 19.5	20.1
519360 2011 KO_{49}	16.6	X	276.62524	325.95623	115.50523	22.83534	0.0342441	0.22584978	2.6704817	21	10 21.3	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519361 2011 KP_{49}	16.5	X	258.58803	176.63262	157.08922	10.69820	0.0953759	0.18962113	3.0006239	21	4 21.7	21.0
519362 2011 LD_{29}	17.6	X	135.77093	329.77121	221.26115	4.23943	0.0868975	0.22057525	2.7128859	21	9 6.7	21.6
519363 2011 LF_{29}	15.7	X	343.79642	303.60431	296.15244	12.80278	0.1417192	0.17121212	3.2120309	21	4 1.3	20.0
519364 2011 MN_{11}	17.6	X	45.26669	199.78974	116.02137	5.16751	0.0439092	0.21589995	2.7519108	21	10 25.6	21.3
519365 2011 NK_{4}	16.3	X	286.51989	39.68685	276.37339	9.56280	0.0677606	0.17842293	3.1248963	21	5 1.7	20.8
519366 2011 NL_{4}	15.7	X	249.92161	354.61263	36.53707	16.67231	0.0829516	0.17428049	3.1742188	21	6 20.2	20.6
519367 2011 OK_{23}	17.1	X	144.64223	190.13573	115.49745	13.50771	0.1721786	0.24406511	2.5359007	21	—	—
519368 2011 OF_{25}	16.7	X	96.01017	60.74593	260.17288	5.16575	0.1286364	0.22878503	2.6475915	21	—	—
519369 2011 OD_{31}	16.5	X	243.00317	243.75330	63.33166	5.94766	0.1004029	0.16774875	3.2560909	21	3 5.8	21.6
519370 2011 OO_{54}	17.2	X	118.22695	224.95069	53.80621	4.67998	0.0497047	0.22403819	2.6848582	21	12 5.9	21.0
519371 2011 OT_{60}	16.5	X	270.99899	250.16604	125.16546	11.08357	0.1260147	0.18666233	3.0322494	21	6 21.6	20.9
519372 2011 OU_{60}	17.0	X	303.96687	192.62797	160.19286	10.35302	0.1109993	0.19030779	2.9934018	21	7 7.7	21.0
519373 2011 OV_{60}	16.3	X	287.11461	41.79318	292.68017	16.66661	0.2508252	0.18156025	3.0887935	21	4 26.0	21.2
519374 2011 PF_{16}	16.6	X	85.78574	217.62186	324.58521	7.99972	0.0769683	0.17947007	3.1127293	21	6 27.8	21.0
519375 2011 PG_{16}	17.2	X	68.32959	147.59621	175.86879	4.70324	0.0663484	0.21427932	2.7657688	21	12 4.6	21.0
519376 2011 QH_{12}	17.7	X	237.84001	342.53799	322.98296	7.06354	0.2938116	0.26095060	2.4252910	21	2 5.5	21.9
519377 2011 QT_{19}	17.9	X	219.76697	348.68994	345.31715	1.91982	0.1973560	0.26159889	2.4212825	21	2 27.1	21.8
519378 2011 QZ_{68}	17.8	X	214.63848	354.33716	339.71476	4.47481	0.2039717	0.25867150	2.4395159	21	2 23.3	21.9
519379 2011 QH_{69}	17.0	X	231.69718	48.26758	254.63842	12.58247	0.2377753	0.25818161	2.4426009	21	1 26.3	21.4
519380 2011 QH_{100}	18.1	X	329.73786	266.97337	19.57111	4.00981	0.1019121	0.27805703	2.3247708	21	5 12.5	20.5
519381 2011 QK_{100}	17.0	X	20.21974	200.37293	159.01980	5.86371	0.0578196	0.20884867	2.8135085	21	11 16.7	20.7
519382 2011 QL_{100}	16.6	X	27.19633	25.85151	26.76819	12.07549	0.1792480	0.21924674	2.7238339	21	—	—
519383 2011 RN_{10}	16.4	X	296.32505	49.27099	231.67289	4.61288	0.1601822	0.16944272	3.2343531	21	3 19.9	21.0
519384 2011 RG_{20}	17.2	X	67.84215	2.28909	87.97881	3.97901	0.0396220	0.24231153	2.5481207	21	1 20.8	20.3
519385 2011 RZ_{20}	16.7	X	288.57774	337.88644	346.87387	7.61696	0.0597543	0.17374799	3.1807011	21	5 17.1	21.2
519386 2011 RB_{21}	16.3	X	7.11933	281.80808	352.85070	12.15809	0.1395218	0.18308657	3.0716028	21	7 9.5	20.0
519387 2011 RC_{21}	16.8	X	183.89481	126.08277	340.22901	15.42834	0.1694748	0.17427735	3.1742570	21	7 16.2	22.2
519388 2011 SK_{5}	18.7	X	25.33317	127.91693	210.28511	21.40424	0.1358433	0.40668216	1.8042608	21	12 16.6	20.8
519389 2011 SJ_{12}	18.1	X	217.50268	214.12718	237.13133	16.33427	0.0745472	0.38752738	1.8632357	21	7 31.4	20.6
519390 2011 SN_{17}	17.1	X	0.79272	24.12633	235.98014	7.36802	0.2451366	0.18457932	3.0550197	21	6 1.8	19.8
519391 2011 SA_{19}	16.9	X	195.30150	251.77391	228.51054	8.11090	0.0358440	0.19047493	2.9916504	21	8 11.3	21.4
519392 2011 SE_{30}	16.6	X	327.57628	316.36450	204.63947	13.40159	0.1580227	0.22514506	2.6760513	21	—	—
519393 2011 SK_{30}	17.2	X	305.77963	49.29628	262.95537	11.02925	0.2744782	0.27865205	2.3214601	21	4 8.7	20.4
519394 2011 SR_{49}	18.2	X	235.30728	107.79348	219.59275	1.72919	0.2331146	0.26183585	2.4198214	21	3 1.9	22.3
519395 2011 SY_{71}	17.5	X	271.62730	45.84312	246.66776	5.75917	0.2369572	0.26459793	2.4029519	21	2 15.2	21.4
519396 2011 SA_{112}	16.5	X	301.62335	107.68716	245.23191	16.12806	0.2227546	0.18521488	3.0480269	21	6 16.8	20.4
519397 2011 SM_{278}	17.1	X	135.20888	287.53814	90.09629	11.48033	0.0526403	0.23689840	2.5867907	21	1 20.4	20.6
519398 2011 SB_{279}	16.4	X	261.86319	117.08576	260.93115	9.80116	0.0912681	0.17660347	3.1463225	21	6 18.2	20.8
519399 2011 SE_{279}	17.0	X	211.70215	241.11388	353.31842	3.25933	0.0545724	0.22363823	2.6880583	21	—	—
519400 2011 SG_{279}	15.8	X	329.32752	261.90001	15.19546	26.02689	0.2253613	0.17266968	3.1939295	21	4 16.7	19.7
519401 2011 SK_{279}	17.4	X	337.73486	67.43957	39.38664	6.90577	0.0283760	0.21896310	2.7261856	21	—	—
519402 2011 SL_{279}	17.5	X	75.12878	216.62053	153.84223	4.16884	0.0689644	0.22050605	2.7134534	21	—	—
519403 2011 SR_{279}	16.7	X	303.41249	263.53255	88.85907	12.27556	0.0936293	0.17893431	3.1189397	21	7 9.6	20.8
519404 2011 SV_{279}	17.0	X	60.01764	325.16392	96.76788	14.50835	0.0876289	0.22643009	2.6659170	21	—	—
519405 2011 SY_{279}	16.8	X	263.45004	304.43919	127.87713	11.00410	0.1253641	0.18234340	3.0799431	21	8 25.4	21.1
519406 2011 SA_{280}	17.2	X	262.77703	0.05951	87.83725	10.06742	0.0671968	0.18894594	3.0077680	21	9 26.3	21.5
519407 2011 SD_{280}	16.7	X	352.93901	47.92659	54.41171	15.02202	0.1611745	0.21984249	2.7189108	21	—	—
519408 2011 SF_{280}	16.8	X	354.68392	29.39428	56.36843	9.95166	0.0802522	0.21713778	2.7414424	21	—	—
519409 2011 SK_{280}	16.1	X	265.81285	83.63072	301.96067	9.61919	0.0931963	0.17534506	3.1613580	21	7 3.2	20.7
519410 2011 SP_{280}	16.2	X	201.90170	227.78766	210.43933	9.94185	0.0333820	0.17103824	3.2142074	21	6 28.7	21.0
519411 2011 TJ_{6}	17.6	X	176.25424	207.99602	130.06277	10.96593	0.1255221	0.24166224	2.5526828	21	1 23.8	21.5
519412 2011 US_{54}	18.4	X	93.55491	327.36253	229.79121	18.15000	0.0778258	0.37200847	1.9147004	21	7 24.8	20.9
519413 2011 UB_{62}	16.8	X	125.08003	263.28281	64.93228	14.74607	0.2203844	0.22053838	2.7131883	21	—	—
519414 2011 US_{90}	18.4	X	114.19762	293.79452	232.16551	19.35726	0.0603657	0.37465062	1.9056878	21	7 5.3	20.8
519415 2011 UC_{113}	16.9	X	58.91092	18.20391	55.04124	15.77662	0.0968565	0.22519098	2.6756875	21	—	—
519416 2011 UZ_{156}	16.5	X	208.30946	233.86109	58.06057	15.64526	0.1152331	0.23093008	2.6311709	21	—	—
519417 2011 UA_{158}	17.0	X	223.20336	32.41965	236.85007	13.32835	0.1509422	0.22664935	2.6641974	21	—	—
519418 2011 UW_{189}	17.7	X	136.04159	88.25158	55.07609	23.14863	0.0213655	0.37319428	1.9106423	21	6 29.3	20.0
519419 2011 UU_{270}	16.8	X	32.52748	313.12905	131.79209	8.66761	0.1482230	0.22366429	2.6878495	21	—	—
519420 2011 UU_{284}	16.6	X	340.74294	340.17279	348.71304	3.99857	0.1606805	0.18312498	3.0711733	21	8 2.5	20.0
519421 2011 UQ_{339}	16.5	X	331.07473	105.11048	224.62975	10.60133	0.1424918	0.18211377	3.0825315	21	7 14.2	20.4
519422 2011 UN_{382}	18.5	X	270.02742	173.37223	232.28766	20.27015	0.1149267	0.38042046	1.8863697	21	7 28.8	20.9
519423 2011 UV_{382}	16.8	X	270.56210	116.96614	311.02640	5.64140	0.1441674	0.18267306	3.0762365	21	8 23.4	21.2
519424 2011 UX_{413}	16.7	X	70.87839	312.93864	119.36554	14.88903	0.1697891	0.22944000	2.6425505	21	1 17.1	19.2
519425 2011 UN_{414}	16.7	X	266.41949	9.69128	235.43537	13.29554	0.2065418	0.23230274	2.6207956	21	—	—
519426 2011 UR_{415}	18.1	X	190.37765	266.26425	52.49921	3.48704	0.1787992	0.23866925	2.5739794	21	1 18.4	22.2
519427 2011 UT_{415}	16.7	X	316.69432	273.10184	50.03439	11.58630	0.1599892	0.17295051	3.1904711	21	6 10.0	20.8
519428 2011 UU_{415}	16.8	X	276.92251	44.06074	35.72584	9.86929	0.0341628	0.19306875	2.9647954	21	10 6.5	20.8
519429 2011 UZ_{415}	17.1	X	45.49062	337.91381	69.53905	3.51077	0.0591602	0.21762650	2.7373365	21	—	—
519430 2011 UB_{416}	16.3	X	118.57995	308.91336	245.90489	8.32784	0.0391389	0.17499475	3.1655757	21	8 13.9	21.1
519431 2011 UC_{416}	16.6	X	202.31834	226.01251	230.98742	14.98074	0.0526211	0.17267933	3.1938106	21	7 18.6	21.6
519432 2011 UL_{416}	17.4	X	286.13235	14.91921	232.95616	4.97873	0.0802872	0.24080102	2.5587656	21	1 26.1	20.9
519433 2011 UN_{416}	17.3	X	139.65364	290.90314	37.74310	6.10240	0.0662757	0.22288952	2.6940746	21	—	—
519434 2011 UD_{417}	16.0	X	61.10122	24.36182	250.30481	14.41171	0.1023809	0.18295241	3.0731043	21	9 19.0	20.6
519435 2011 UL_{417}	17.3	X	261.29916	241.03763	212.71319	0.44869	0.1226173	0.18364074	3.0654203	21	9 17.6	21.6
519436 2011 UU_{417}	16.2	X	218.34782	269.64586	256.40399	12.93758	0.1506502	0.18757029	3.0224562	21	10 22.3	21.1
519437 2011 VW_{19}	16.1	X	274.02063	121.11476	297.09388	18.74358	0.1104297	0.17883714	3.1200693	21	8 15.4	20.6
519438 2011 VO_{24}	16.3	X	171.41231	257.39019	237.67448	8.58781	0.0319565	0.17361724	3.1822977	21	8 1.4	21.1
519439 2011 WR_{15}	18.1	X	350.69021	85.22373	233.84225	21.88155	0.0526601	0.38183184	1.8817184	21	8 8.9	20.4
519440 2011 WX_{48}	17.0	X	141.61514	281.36099	87.10101	14.16618	0.1912940	0.23454718	2.6040495	21	2 5.6	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519441 2011 WO_{63}	16.8	X	69.65789	157.36327	259.42687	4.16752	0.0447812	0.22117891	2.7079475	21	—	—
519442 2011 WT_{78}	17.3	X	95.18197	4.38437	55.81173	12.35204	0.1147311	0.22585656	2.6704282	21	2 6.8	20.9
519443 2011 WN_{158}	15.7	X	18.85678	257.82823	93.35644	11.08422	0.1025750	0.18836039	3.0139982	21	11 8.2	19.7
519444 2011 XR_{3}	16.9	X	359.98477	328.18163	137.62263	12.24548	0.1119796	0.21431321	2.7654772	21	—	—
519445 2011 YB_{9}	16.1	X	54.83709	60.58833	256.60780	9.46980	0.0184942	0.18859459	3.0115025	21	10 27.3	20.4
519446 2011 YL_{9}	18.6	X	231.34539	350.85581	81.24716	23.46478	0.0978432	0.37399963	1.9078985	21	7 27.1	21.1
519447 2011 YN_{58}	16.8	X	281.55372	35.53667	101.89259	6.34450	0.1196341	0.19046794	2.9917235	21	12 10.4	20.7
519448 2011 YG_{66}	16.7	X	108.29946	289.30195	96.72850	13.68704	0.1517881	0.21795380	2.7345954	21	1 14.8	20.3
519449 2011 YW_{79}	17.0	X	18.82335	225.47762	305.74442	8.15065	0.1902147	0.22311910	2.6922262	21	2 21.9	19.6
519450 2011 YX_{79}	16.3	X	260.36184	159.03533	347.86810	9.98965	0.1650552	0.17758933	3.1346674	21	11 10.7	20.9
519451 2011 YE_{80}	16.4	X	273.06368	76.74533	316.33142	8.44267	0.0860237	0.15895423	3.3751105	21	7 22.7	21.2
519452 2011 YG_{80}	17.6	X	312.53880	262.67769	81.54983	10.44118	0.1218143	0.26426141	2.4049915	21	7 9.1	20.1
519453 2011 YN_{80}	16.5	X	202.69148	233.89730	330.00068	4.69296	0.1221433	0.18277392	3.0751047	21	11 24.6	21.3
519454 2011 YP_{80}	18.1	X	264.96057	53.10427	144.02513	3.74458	0.0383749	0.30525537	2.1845426	21	—	—
519455 2011 YS_{80}	16.7	X	78.72078	100.33238	133.56439	14.08648	0.1145929	0.24199626	2.5503333	21	9 5.1	20.2
519456 2012 AE_{25}	16.8	X	5.57890	298.02212	287.71186	11.94425	0.1492737	0.23042118	2.6350435	21	4 12.6	19.9
519457 2012 AK_{25}	16.8	X	217.90103	13.27636	121.94598	8.28150	0.0966965	0.17201684	3.2020055	21	9 25.0	21.7
519458 2012 AN_{25}	18.1	X	137.82370	113.81901	33.90636	1.49197	0.1496186	0.25324091	2.4742684	21	7 22.2	21.9
519459 2012 AO_{25}	16.9	X	311.62404	275.03806	221.87529	4.73109	0.2346063	0.18697857	3.0288294	21	—	—
519460 2012 AP_{25}	17.2	X	78.59856	229.88768	351.63788	13.11809	0.0987527	0.24101796	2.5572299	21	8 17.9	20.6
519461 2012 AQ_{25}	16.6	X	115.43466	19.19088	289.26213	10.49071	0.0167175	0.19223507	2.9733610	21	12 31.4	20.9
519462 2012 BX_{42}	16.9	X	98.83449	294.29822	98.80209	4.73801	0.0838844	0.21420534	2.7664056	21	1 1.6	20.4
519463 2012 BS_{152}	16.8	X	273.09499	1.54952	142.95147	12.21725	0.1680574	0.18317376	3.0706281	21	12 1.1	21.1
519464 2012 BO_{157}	16.3	X	211.03174	213.32439	323.43830	9.87722	0.0801986	0.17544061	3.1602101	21	10 31.9	21.3
519465 2012 BP_{157}	16.2	X	96.11416	305.30654	309.06769	13.90814	0.0199523	0.17045510	3.2215340	21	9 23.5	21.0
519466 2012 BR_{157}	16.6	X	239.71708	132.47735	7.84885	6.14847	0.1264887	0.17679963	3.1439947	21	10 17.6	21.2
519467 2012 BW_{157}	16.2	X	124.69872	117.48023	147.95494	17.73842	0.1425810	0.17170848	3.2058378	21	11 28.1	21.6
519468 2012 BZ_{157}	16.8	X	189.33028	13.66832	315.15869	5.76205	0.0366435	0.21176216	2.7876429	21	1 26.3	20.6
519469 2012 BA_{158}	17.1	X	190.88847	69.01360	150.30496	4.57380	0.0856639	0.17770134	3.1333500	21	12 4.6	21.8
519470 2012 BC_{158}	17.7	X	23.44140	203.76125	155.80390	17.84020	0.0552643	0.27760179	2.3273116	21	12 6.5	20.9
519471 2012 BJ_{158}	17.8	X	73.20877	332.87751	284.40444	1.85018	0.1533392	0.25668367	2.4520946	21	10 2.9	21.2
519472 2012 BL_{158}	16.2	X	204.27446	320.61405	275.06102	10.58574	0.0297844	0.18662553	3.0326481	21	—	—
519473 2012 BU_{158}	16.1	X	164.47385	257.14480	326.52631	18.35607	0.0932926	0.17650221	3.1475258	21	11 4.9	21.3
519474 2012 BH_{159}	17.3	X	358.15191	79.48994	138.78847	15.43036	0.0752932	0.22738079	2.6584808	21	4 6.7	20.8
519475 2012 CD_{17}	17.7	X	237.55375	287.43956	122.37780	24.54570	0.1263560	0.36054723	1.9550653	21	6 27.3	20.3
519476 2012 CP_{58}	16.9	X	190.72099	106.36110	152.23951	4.43728	0.2290446	0.18723840	3.0260268	21	—	—
519477 2012 CS_{58}	17.6	X	112.17761	272.81447	129.98794	3.42367	0.0779049	0.21548319	2.7554580	21	1 30.3	21.2
519478 2012 CW_{58}	17.3	X	4.51368	266.55645	170.64341	6.28435	0.2137340	0.19492788	2.9459141	21	—	—
519479 2012 CD_{59}	17.3	X	338.15027	126.76475	335.67863	9.04932	0.0309115	0.19177594	2.9781048	21	—	—
519480 2012 DX_{63}	16.4	X	25.58026	35.52202	313.66175	8.01982	0.0884631	0.17495519	3.1660529	21	11 3.9	20.7
519481 2012 DV_{65}	18.3	X	94.55012	265.53147	354.51875	2.76030	0.1145343	0.26390996	2.4071262	21	10 27.6	21.7
519482 2012 DD_{78}	15.9	X	237.33165	304.23422	246.79470	8.66271	0.2459029	0.18156924	3.0886915	21	12 1.5	20.7
519483 2012 DZ_{94}	17.5	X	326.64708	222.74468	6.63279	1.45037	0.0367711	0.22106005	2.7089181	21	3 6.5	21.1
519484 2012 DX_{101}	16.5	X	181.74949	101.36140	144.38658	19.04025	0.2138522	0.17741466	3.1367245	21	12 20.6	22.1
519485 2012 DD_{102}	16.0	X	306.21370	309.35301	22.24405	15.42564	0.1682571	0.24277154	2.5449009	21	5 28.5	19.3
519486 2012 DF_{102}	16.4	X	209.35407	175.04016	76.27867	11.13829	0.0617721	0.18824418	3.0152385	21	—	—
519487 2012 DO_{102}	16.7	X	292.71823	160.15364	344.93650	4.93101	0.0877870	0.18479194	3.0526760	21	—	—
519488 2012 DU_{102}	16.3	X	166.97779	133.56281	158.98407	17.48781	0.2098224	0.18054776	3.1003304	21	—	—
519489 2012 DV_{102}	17.8	X	220.24000	161.48318	79.14839	6.50678	0.0734666	0.29063347	2.2572117	21	—	—
519490 2012 DK_{103}	17.1	X	24.27880	37.51261	177.91544	22.02824	0.0038296	0.22804969	2.6532799	21	5 10.5	21.0
519491 2012 DO_{103}	17.3	X	301.48482	48.40385	121.02526	3.15667	0.0486045	0.19295546	2.9659557	21	—	—
519492 2012 DQ_{103}	17.7	X	253.22669	96.04700	14.62952	6.95538	0.0571173	0.26503488	2.4003101	21	10 18.2	20.6
519493 2012 DW_{103}	18.1	X	138.25640	167.56848	285.54399	3.11974	0.1518840	0.23283963	2.6167654	21	5 11.4	22.1
519494 2012 DO_{104}	16.9	X	218.66397	88.00636	208.88932	7.14118	0.0619167	0.20100734	2.8862112	21	1 20.2	21.3
519495 2012 DR_{104}	16.8	X	274.68311	247.88092	230.36087	3.66019	0.1288491	0.17083108	3.2168054	21	11 1.4	21.2
519496 2012 DT_{104}	17.8	X	35.32075	268.65532	3.62883	2.29866	0.0554610	0.24594900	2.5229347	21	8 16.3	20.7
519497 2012 DW_{104}	18.2	X	104.15260	72.11877	179.03774	2.00729	0.0631453	0.26211578	2.4180982	21	10 23.0	21.3
519498 2012 DA_{105}	16.1	X	180.15900	284.57119	6.15508	16.01795	0.1865370	0.18449260	3.0559770	21	—	—
519499 2012 DG_{105}	17.1	X	217.23787	195.01419	113.17503	3.25961	0.0636961	0.20399061	2.8580025	21	2 2.9	21.4
519500 2012 DH_{105}	17.3	X	262.32294	114.20428	116.61379	3.11671	0.1404098	0.19321883	2.9632599	21	—	—
519501 2012 DL_{105}	18.2	X	243.04745	324.50474	145.92086	8.39721	0.0565393	0.26347392	2.4097813	21	10 7.5	21.3
519502 2012 DO_{105}	17.4	X	345.34031	219.82751	125.85794	8.13305	0.1304786	0.25303835	2.4755887	21	9 15.7	19.8
519503 2012 DS_{105}	17.9	X	124.11898	54.79904	177.90432	5.04882	0.0952755	0.26018978	2.4300165	21	10 24.7	21.3
519504 2012 EU_{14}	20.3	X	350.09743	88.69162	185.01017	22.63261	0.4792625	0.32764524	2.0838517	21	3 7.8	21.9
519505 2012 EK_{19}	16.6	X	13.90382	134.13324	342.16071	8.29191	0.0957675	0.19657400	2.9294449	21	—	—
519506 2012 EL_{19}	16.9	X	303.32652	37.56536	211.08433	9.13718	0.1585313	0.20846255	2.8169816	21	2 9.9	21.0
519507 2012 EX_{19}	17.7	X	81.55718	311.53342	185.44401	3.41804	0.2175502	0.22384825	2.6863767	21	5 13.1	21.1
519508 2012 EZ_{19}	16.4	X	272.28317	279.10295	217.82227	12.76008	0.2441683	0.17468943	3.1692632	21	11 5.5	20.6
519509 2012 FS_{26}	16.8	X	220.20323	23.59342	180.90686	14.38274	0.1504660	0.17571185	3.1569571	21	12 10.8	21.9
519510 2012 FO_{60}	15.7	X	80.86902	269.77764	81.24738	12.18934	0.0636470	0.17252307	3.1957387	21	—	—
519511 2012 FO_{85}	16.8	X	40.90896	141.50365	26.99272	8.75968	0.0959909	0.21653694	2.7465113	21	4 4.9	20.1
519512 2012 FR_{85}	17.6	X	80.54264	119.54918	95.64253	3.79612	0.0818568	0.23904107	2.5713096	21	8 5.9	20.8
519513 2012 FS_{85}	16.0	X	311.08765	100.47684	68.70898	12.59804	0.0975687	0.18430117	3.0580928	21	—	—
519514 2012 FD_{86}	17.0	X	269.93262	279.49047	23.73292	4.04875	0.2164882	0.21046527	2.7990829	21	3 10.5	21.4
519515 2012 FF_{86}	17.0	X	301.56734	125.36298	43.58517	5.66061	0.1535605	0.18675093	3.0312903	21	—	—
519516 2012 FG_{86}	17.5	X	275.48234	118.08285	34.60987	7.21855	0.0465556	0.27903613	2.3193293	21	—	—
519517 2012 FK_{86}	16.5	X	269.06102	319.10018	181.63128	5.67428	0.1231462	0.17205344	3.2015514	21	11 23.8	20.8
519518 2012 FO_{86}	16.9	X	282.10510	142.21741	70.63053	6.93194	0.1330554	0.19061833	2.9901498	21	—	—
519519 2012 GR_{10}	16.7	X	186.81045	51.66617	204.31767	9.14243	0.1347375	0.17638290	3.1489450	21	—	—
519520 2012 GH_{30}	16.1	X	230.63039	136.38845	50.13734	25.28236	0.1260595	0.17401620	3.1774320	21	11 28.4	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519521 2012 GE_{40}	16.1	X	216.65928	105.67828	97.58526	26.91106	0.2003176	0.17228514	3.1986803	21	12 4.9	21.4
519522 2012 GP_{41}	16.1	X	176.68142	222.57601	97.14991	18.41337	0.2023736	0.18098418	3.0953444	21	1 16.9	21.3
519523 2012 HB_{36}	16.1	X	349.87829	49.84129	43.15479	17.27937	0.2074629	0.17995935	3.1070848	21	—	—
519524 2012 HT_{85}	17.6	X	125.05084	40.77333	156.70920	2.63255	0.1547808	0.24366169	2.5386990	21	9 11.8	21.6
519525 2012 HP_{86}	18.2	X	193.54339	82.24829	140.66316	6.50010	0.0905013	0.27088543	2.3656234	21	12 27.2	21.5
519526 2012 HG_{87}	17.8	X	167.40150	292.93608	212.71920	5.68253	0.1144537	0.24345567	2.5401311	21	8 14.7	21.7
519527 2012 JY_{45}	15.9	X	210.09945	122.61075	136.06243	27.91417	0.2337375	0.17472656	3.1688142	21	—	—
519528 2012 JW_{54}	17.6	X	67.04816	135.03742	69.66100	6.71056	0.0298532	0.22878389	2.6476003	21	6 23.8	21.1
519529 2012 JT_{67}	17.3	X	320.71069	165.29836	125.30425	9.10066	0.1972462	0.21439070	2.7648108	21	4 29.8	20.7
519530 2012 JW_{67}	17.7	X	103.69985	136.58748	135.37102	2.41803	0.1557811	0.25302165	2.4756976	21	11 24.6	21.4
519531 2012 JY_{67}	17.6	X	17.43906	109.63908	173.89471	2.08093	0.1785828	0.22947276	2.6422990	21	8 13.9	20.2
519532 2012 KS_{4}	16.4	X	232.98413	138.65525	127.60392	10.41781	0.0885737	0.18649901	3.0340194	21	1 2.5	21.1
519533 2012 KD_{22}	16.4	X	49.48253	329.45202	83.06633	10.99543	0.0720793	0.17897893	3.1184212	21	—	—
519534 2012 KG_{52}	16.4	X	155.03280	314.25155	225.33837	5.93659	0.0710652	0.24461710	2.5320844	21	9 13.9	20.1
519535 2012 KO_{52}	17.7	X	358.56905	144.87678	102.91043	10.47323	0.1424874	0.21593402	2.7516213	21	5 14.4	20.8
519536 2012 KP_{52}	16.8	X	57.62276	48.39509	253.84535	14.44596	0.1669423	0.23538995	2.5978303	21	11 10.4	20.5
519537 2012 KS_{52}	16.8	X	222.10914	261.83248	118.77322	9.94615	0.2384424	0.20961389	2.8066570	21	5 2.9	21.8
519538 2012 LV_{4}	17.0	X	61.03418	139.58102	93.19247	13.87101	0.1232228	0.23011817	2.6373561	21	8 11.2	20.5
519539 2012 LS_{14}	17.3	X	116.90220	1.96236	189.97817	16.05718	0.1340832	0.23733295	2.5836322	21	8 21.5	21.4
519540 2012 MQ_{16}	17.0	X	338.30029	350.26621	356.74335	9.42568	0.1724242	0.21541570	2.7560335	21	8 27.6	19.7
519541 2012 OW	17.1	X	109.76112	34.64593	217.26459	14.83668	0.1173832	0.24515635	2.5283699	21	11 1.5	20.9
519542 2012 PA_{45}	16.4	X	264.35918	88.56542	239.21584	9.15441	0.1156374	0.18893941	3.0078373	21	4 13.1	21.0
519543 2012 PB_{45}	16.5	X	52.14725	336.79265	314.35936	12.74240	0.1609897	0.22655048	2.6649724	21	10 12.2	20.3
519544 2012 PC_{45}	17.0	X	331.61318	74.64398	304.08270	11.70209	0.2159030	0.22302749	2.6929634	21	9 18.8	19.7
519545 2012 PG_{45}	16.9	X	307.95334	305.40928	150.25955	15.16014	0.0385693	0.24231518	2.5480951	21	12 15.8	20.4
519546 2012 QF_{53}	17.3	X	97.24605	72.12278	134.38975	3.99916	0.0211543	0.21514596	2.7583365	21	8 5.3	20.9
519547 2012 QG_{53}	17.5	X	28.70234	219.01515	254.46701	4.01378	0.0938046	0.26829479	2.3808273	21	—	—
519548 2012 QJ_{53}	16.0	X	56.00674	268.54210	241.39686	8.83236	0.0421541	0.17906648	3.1174047	21	3 29.9	20.3
519549 2012 QL_{53}	17.1	X	46.92429	179.07209	156.33293	9.84105	0.1966201	0.23437275	2.6053414	21	12 15.8	20.8
519550 2012 QN_{53}	16.0	X	213.10560	311.91420	7.47925	15.90269	0.2734840	0.17208019	3.2012195	21	2 19.1	21.8
519551 2012 QO_{53}	16.8	X	347.44095	180.30184	155.56338	15.51078	0.1515893	0.21535577	2.7565447	21	8 27.8	19.5
519552 2012 QP_{53}	16.7	X	189.12692	230.39780	159.71183	9.98949	0.0524218	0.18160167	3.0883238	21	4 17.9	21.3
519553 2012 QQ_{53}	16.2	X	97.16052	246.84065	276.17559	7.53899	0.0772911	0.19214814	2.9742577	21	6 16.7	20.2
519554 2012 QS_{53}	17.2	X	208.28479	181.39798	250.06027	2.70939	0.2376379	0.19330406	2.9623888	21	6 18.9	22.3
519555 2012 QT_{53}	16.6	X	227.41717	10.75259	345.02444	10.31598	0.0744113	0.18429705	3.0581383	21	4 10.1	21.3
519556 2012 QW_{53}	16.8	X	315.24240	180.15721	180.11745	3.53593	0.1091552	0.21167484	2.7884095	21	8 5.3	20.0
519557 2012 QX_{53}	16.5	X	296.99651	85.40359	303.47557	5.41335	0.0464975	0.21256975	2.7805780	21	8 24.4	20.0
519558 2012 QA_{54}	17.3	X	339.00285	217.90630	192.19759	4.44793	0.1402782	0.22360246	2.6883450	21	11 28.8	20.1
519559 2012 RG_{44}	16.5	X	218.74910	13.29693	10.02890	13.26521	0.0903948	0.18597759	3.0396878	21	5 3.5	21.3
519560 2012 RJ_{44}	16.3	X	42.52141	329.47278	291.09352	14.36278	0.1085862	0.20437782	2.8543915	21	8 10.6	20.0
519561 2012 RM_{44}	16.4	X	276.04650	69.52663	345.96588	13.28257	0.0474354	0.21218620	2.7839277	21	9 2.3	20.2
519562 2012 RN_{44}	16.6	X	208.20629	12.74056	354.26865	9.30444	0.0956926	0.17556982	3.1586595	21	4 5.3	21.6
519563 2012 SO_{13}	18.2	X	298.78341	274.95013	356.40156	4.18272	0.1566091	0.29355095	2.2422312	21	2 24.2	21.2
519564 2012 SH_{68}	18.0	X	200.85109	176.16789	166.58515	7.46723	0.0563581	0.27678922	2.3318643	21	2 14.6	21.3
519565 2012 SU_{69}	16.3	X	243.60913	126.01621	90.17050	15.80878	0.0265025	0.22427711	2.6829510	21	—	—
519566 2012 SV_{69}	16.6	X	175.28520	66.16235	17.83180	12.99160	0.0916303	0.18738931	3.0244020	21	6 3.8	21.5
519567 2012 SY_{69}	16.5	X	136.79373	282.79931	149.87906	10.53776	0.0923991	0.17763745	3.1341013	21	4 16.7	21.3
519568 2012 SZ_{69}	16.4	X	213.58086	103.03437	287.34918	7.14157	0.1220228	0.18491991	3.0512674	21	5 7.4	21.3
519569 2012 SB_{70}	16.8	X	271.36197	251.47252	204.49934	10.44019	0.1071932	0.21619393	2.7494156	21	10 9.1	20.4
519570 2012 SH_{70}	15.9	X	267.17079	275.54187	55.69642	11.06466	0.1199946	0.18982365	2.9984893	21	4 24.5	20.4
519571 2012 SK_{70}	16.3	X	219.69832	135.91467	219.12392	9.36016	0.0455838	0.17157909	3.2074493	21	4 5.9	21.2
519572 2012 SL_{70}	17.3	X	14.70019	343.81934	4.21500	8.65014	0.1968503	0.22168905	2.7037917	21	11 9.8	20.4
519573 2012 SR_{70}	17.8	X	352.29752	144.57161	268.99565	1.66309	0.1759647	0.23153453	2.6265895	21	—	—
519574 2012 ST_{70}	17.1	X	268.23747	123.03212	233.33790	2.45978	0.1217497	0.19215580	2.9741787	21	5 24.7	21.5
519575 2012 SV_{70}	17.5	X	303.49974	128.19488	349.51301	12.88868	0.2060160	0.23114877	2.6295110	21	12 24.8	20.2
519576 2012 SA_{71}	16.9	X	193.11115	104.38712	321.70792	7.38266	0.0961649	0.18283076	3.0744673	21	6 1.7	21.8
519577 2012 SF_{71}	17.7	X	25.45930	227.33805	141.97407	4.62601	0.1768233	0.23021655	2.6366047	21	12 26.7	21.0
519578 2012 SG_{71}	16.4	X	98.52014	335.33405	57.31888	16.08661	0.1190067	0.24341349	2.5404245	21	—	—
519579 2012 SH_{71}	17.8	X	81.98279	250.74522	235.23074	4.64823	0.1006429	0.28343462	2.2952718	21	3 30.0	20.2
519580 2012 SK_{71}	17.7	X	349.67193	180.01584	248.76373	3.60588	0.1339119	0.23702557	2.5858654	21	—	—
519581 2012 SM_{71}	16.4	X	110.26799	158.43343	348.92037	10.68016	0.0176890	0.19008658	2.9957237	21	6 2.5	20.8
519582 2012 SO_{71}	16.2	X	309.20937	101.83992	230.93713	8.08654	0.1503631	0.18933603	3.0036353	21	6 13.4	20.1
519583 2012 SQ_{71}	16.4	X	258.70933	8.86495	75.30792	13.28150	0.1099439	0.18893439	3.0078906	21	9 11.9	20.9
519584 2012 TD_{28}	17.1	X	285.62853	246.08114	188.79812	4.60659	0.0916121	0.22021024	2.7158829	21	10 5.1	20.3
519585 2012 TC_{280}	17.6	X	310.34557	315.50216	282.01994	6.26538	0.1199227	0.27901096	2.3194688	21	1 29.8	20.5
519586 2012 TW_{309}	17.9	X	219.38633	119.31292	250.28060	4.44381	0.1591106	0.29114827	2.2545502	21	4 8.4	21.3
519587 2012 TU_{327}	17.0	X	264.02121	254.94220	334.14016	13.41692	0.1279693	0.26184600	2.4197589	21	—	—
519588 2012 TA_{328}	16.9	X	283.86621	173.09372	191.01009	6.51582	0.0849145	0.19625610	2.9326075	21	6 28.4	21.0
519589 2012 TC_{328}	16.6	X	258.63040	228.08714	148.44882	11.54368	0.2046479	0.19227437	2.9729558	21	5 31.8	21.4
519590 2012 TE_{328}	16.7	X	118.61888	160.38411	341.58699	9.12385	0.0383795	0.18822070	3.0154893	21	6 10.2	21.1
519591 2012 TF_{328}	16.6	X	265.44521	121.83626	210.04130	9.20127	0.0675523	0.18036304	3.1024468	21	4 28.7	20.9
519592 2012 TJ_{328}	17.1	X	261.54301	18.97601	20.93788	7.99081	0.1022475	0.19716592	2.9235789	21	7 16.3	21.3
519593 2012 TL_{328}	16.3	X	82.35716	121.79443	34.80593	9.95633	0.0138331	0.17669114	3.1452817	21	5 10.4	20.7
519594 2012 TR_{328}	16.4	X	29.17852	255.02326	65.06765	7.39466	0.0561617	0.21260484	2.7802720	21	10 11.3	20.1
519595 2012 TT_{328}	17.5	X	329.02225	53.26912	48.67633	13.26324	0.1264865	0.23378475	2.6097081	21	—	—
519596 2012 TU_{328}	16.0	X	246.00876	301.62878	40.75886	10.96501	0.1094331	0.17530650	3.1618216	21	4 16.9	20.7
519597 2012 TB_{329}	17.3	X	92.72121	231.50572	50.91805	9.06958	0.2146961	0.23014630	2.6371412	21	11 27.2	21.5
519598 2012 TE_{329}	16.4	X	276.89298	124.88219	211.60320	10.59476	0.1095815	0.18221160	3.0814280	21	5 12.8	20.8
519599 2012 TF_{329}	17.1	X	45.35189	257.44972	0.11934	5.59770	0.0166708	0.20140196	2.8824399	21	8 4.4	21.0
519600 2012 TR_{329}	16.9	X	15.19304	148.25541	277.59404	12.63746	0.1100940	0.23779549	2.5802808	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519601 2012 TT_{329}	16.3	X	265.49696	115.13418	221.65568	15.79240	0.0416977	0.18210160	3.0826688	21	5 8.1	20.5
519602 2012 TZ_{329}	17.4	X	76.40212	252.85332	229.19911	6.25459	0.0649347	0.27400594	2.3476286	21	3 10.7	20.1
519603 2012 TA_{330}	17.6	X	315.21995	10.11118	62.31797	3.08342	0.1869454	0.22439237	2.6820322	21	11 12.2	19.9
519604 2012 TB_{330}	16.2	X	299.04572	65.62837	233.19826	9.15254	0.0901428	0.18104863	3.0946097	21	4 24.1	20.6
519605 2012 TC_{330}	16.9	X	298.90103	98.37807	220.67198	2.14942	0.0946725	0.18620157	3.0372496	21	5 20.1	20.9
519606 2012 TK_{330}	16.7	X	344.21752	67.38371	221.37974	7.31512	0.0205690	0.18822707	3.0154213	21	6 20.7	20.8
519607 2012 TO_{330}	16.5	X	8.78832	262.61183	54.18591	12.73438	0.2016563	0.20956334	2.8071083	21	9 23.9	19.6
519608 2012 UD_{39}	17.5	X	265.33137	276.40485	9.29422	7.22621	0.1136110	0.27942514	2.3171762	21	2 14.0	20.9
519609 2012 UH_{53}	16.6	X	37.59360	73.27123	295.49403	13.23207	0.2059823	0.23359885	2.6110925	21	—	—
519610 2012 UN_{68}	18.2	X	300.88399	36.29314	270.59757	2.34847	0.3720153	0.30474186	2.1869959	21	3 14.8	21.6
519611 2012 UF_{103}	16.9	X	27.80388	158.07994	82.53547	3.16179	0.0627889	0.18523529	3.0478030	21	6 20.4	20.8
519612 2012 UY_{180}	16.1	X	112.74901	229.81047	256.03446	10.61038	0.0468452	0.17777945	3.1324322	21	5 14.9	20.7
519613 2012 UZ_{180}	17.4	X	151.32209	132.83487	105.71456	3.38760	0.1456592	0.22966661	2.6408120	21	11 24.5	21.5
519614 2012 UA_{181}	17.3	X	11.86483	279.50709	50.73206	5.09945	0.0659796	0.21317058	2.7753507	21	9 29.6	20.8
519615 2012 UB_{181}	16.4	X	182.01942	273.55880	200.02640	9.17347	0.0601038	0.18930656	3.0039470	21	7 18.8	21.0
519616 2012 UD_{181}	16.6	X	181.93652	266.93277	184.01734	7.15924	0.1384792	0.18139648	3.0906522	21	6 22.1	21.7
519617 2012 UH_{181}	17.1	X	93.03965	140.90356	89.12755	3.16629	0.0042180	0.20343245	2.8632278	21	8 29.3	21.0
519618 2012 UK_{181}	17.2	X	292.74232	347.40383	60.21695	8.43845	0.0501175	0.20802351	2.8209439	21	9 17.9	21.0
519619 2012 UL_{181}	16.7	X	305.39895	268.50925	62.27489	11.53809	0.1083506	0.19149088	2.9810596	21	6 10.4	20.6
519620 2012 UO_{181}	17.8	X	356.47514	274.08136	135.98031	3.32432	0.1418654	0.22804323	2.6533300	21	12 30.2	20.8
519621 2012 UQ_{181}	16.9	X	259.88961	143.78164	194.60513	7.55799	0.1296786	0.17991625	3.1075810	21	4 23.4	21.6
519622 2012 UR_{181}	16.5	X	4.32977	177.66415	49.52649	5.50954	0.0521842	0.17394010	3.1783586	21	4 30.0	20.6
519623 2012 US_{181}	16.6	X	357.10678	54.31761	211.52034	9.22334	0.0627013	0.18505992	3.0497282	21	6 7.9	20.6
519624 2012 UX_{181}	16.5	X	180.69782	211.99260	220.88578	10.62769	0.0339539	0.17850794	3.1239041	21	5 29.2	21.0
519625 2012 UZ_{181}	16.3	X	92.54410	318.49216	190.96513	7.75139	0.1466594	0.17113782	3.2129605	21	6 4.9	21.0
519626 2012 UC_{182}	17.0	X	59.11884	56.16256	241.63071	3.62089	0.0429081	0.21427893	2.7657722	21	10 16.6	20.7
519627 2012 UG_{182}	16.4	X	217.73929	315.93511	122.93665	12.30692	0.1105067	0.19226208	2.9730825	21	7 13.3	21.0
519628 2012 UH_{182}	16.2	X	14.73522	4.28766	278.54368	8.07905	0.0288864	0.17562826	3.1579587	21	7 24.0	20.6
519629 2012 UL_{182}	16.7	X	176.06518	298.20646	163.80038	6.45034	0.0492426	0.18305941	3.0719067	21	6 29.1	21.3
519630 2012 UN_{182}	15.6	X	140.77611	230.21573	211.48065	11.53121	0.0302592	0.16847726	3.2466977	21	4 23.1	20.3
519631 2012 UO_{182}	17.3	X	65.05937	247.64160	75.26892	7.23100	0.1679250	0.22805988	2.6532008	21	12 14.8	21.0
519632 2012 UP_{182}	17.1	X	136.22524	227.93307	96.96448	5.64556	0.0452532	0.24658254	2.5186115	21	—	—
519633 2012 UQ_{182}	15.8	X	98.60278	70.63729	77.76456	12.24540	0.0701568	0.17400608	3.1775552	21	5 30.9	20.3
519634 2012 US_{182}	17.1	X	247.42953	335.47212	58.79247	12.29701	0.0974335	0.18850340	3.0124736	21	6 20.1	21.6
519635 2012 UT_{182}	17.0	X	40.04633	220.98148	81.38387	5.99064	0.0416412	0.20803690	2.8208228	21	9 30.7	20.8
519636 2012 UV_{182}	16.7	X	246.74632	7.36571	32.89460	1.90063	0.0875813	0.18913211	3.0057940	21	6 29.1	21.0
519637 2012 UW_{182}	17.3	X	299.71679	121.44660	116.10567	4.34929	0.0928491	0.26840461	2.3801778	21	1 23.9	20.5
519638 2012 UZ_{182}	16.9	X	250.32203	58.28460	96.70486	4.50731	0.0283569	0.22514234	2.6760728	21	12 10.1	20.5
519639 2012 UC_{183}	17.3	X	25.31808	116.82157	217.94457	3.62768	0.1271667	0.21564207	2.7541044	21	10 31.7	20.7
519640 2012 UD_{183}	16.0	X	132.81196	284.80415	220.21808	15.36483	0.2041441	0.17685531	3.1433348	21	7 12.9	21.4
519641 2012 UE_{183}	16.8	X	18.63902	279.44385	45.21441	13.73873	0.1571826	0.21143351	2.7905309	21	10 14.9	20.0
519642 2012 UF_{183}	17.2	X	193.77745	352.09357	221.89065	2.42429	0.0713403	0.22553364	2.6729766	21	12 9.8	21.1
519643 2012 UG_{183}	17.2	X	45.36412	265.45265	66.77901	3.74492	0.2076434	0.22246148	2.6975293	21	12 8.3	20.8
519644 2012 UH_{183}	17.1	X	356.85058	350.15650	31.10045	6.67988	0.0173982	0.21764771	2.7371587	21	11 8.3	20.7
519645 2012 UK_{183}	16.9	X	227.76394	108.53030	27.83981	4.14649	0.0466408	0.21132007	2.7915295	21	10 14.3	20.6
519646 2012 UN_{183}	17.2	X	18.59151	111.10656	302.03097	10.67006	0.1832100	0.23514960	2.5996002	21	—	—
519647 2012 UO_{183}	16.8	X	244.45590	209.02831	216.17653	4.46959	0.0211626	0.19331341	2.9622933	21	8 4.5	20.9
519648 2012 UP_{183}	16.0	X	213.92923	83.00831	298.00626	13.40234	0.0373008	0.17380514	3.1800038	21	4 27.7	20.9
519649 2012 VQ_{8}	17.9	X	304.35525	169.45251	43.36438	7.83138	0.0566059	0.26509554	2.3999440	21	1 3.5	21.1
519650 2012 VC_{38}	17.0	X	94.66922	320.19688	87.64021	8.45315	0.1444835	0.25786941	2.4445720	21	1 12.6	19.6
519651 2012 VQ_{86}	17.4	X	353.99689	5.91321	55.99662	16.10124	0.1735598	0.22760415	2.6567413	21	—	—
519652 2012 VH_{104}	17.4	X	74.44470	31.98967	69.79206	7.18430	0.0985153	0.26586818	2.3952921	21	2 19.1	20.0
519653 2012 VY_{114}	17.2	X	291.37142	56.95713	77.66065	14.11343	0.1727776	0.22194450	2.7017166	21	12 23.3	20.0
519654 2012 VC_{115}	16.2	X	307.21555	70.07211	259.73048	10.16514	0.0638532	0.18415401	3.0597218	21	6 18.9	20.2
519655 2012 VE_{115}	17.2	X	166.52284	256.12164	37.60640	6.79140	0.0587795	0.24098957	2.5574308	21	—	—
519656 2012 VG_{115}	16.9	X	244.64383	311.08314	96.17560	11.95050	0.1565123	0.18708174	3.0277159	21	6 27.7	21.4
519657 2012 VH_{115}	17.3	X	303.20248	164.76971	264.63801	3.21274	0.0435837	0.21276866	2.7788447	21	10 26.6	20.9
519658 2012 WY_{31}	15.8	X	165.70362	274.07693	249.91621	9.49814	0.0443233	0.19184907	2.9773479	21	8 30.5	20.4
519659 2012 WP_{36}	16.3	X	345.64354	247.39367	56.58782	10.96178	0.0855726	0.19097397	2.9864363	21	7 11.5	20.1
519660 2012 WQ_{36}	16.8	X	279.69198	217.74113	132.61653	1.73808	0.1896632	0.18662871	3.0326136	21	5 21.9	21.2
519661 2012 WV_{36}	16.0	X	101.71152	192.13679	99.33912	12.43217	0.0492145	0.21669746	2.7451548	21	12 3.6	19.9
519662 2012 XY_{51}	17.3	X	96.41037	169.83955	141.39349	5.83022	0.1404170	0.22792879	2.6542180	21	12 29.5	21.5
519663 2012 XG_{156}	16.7	X	340.87583	96.80593	287.71759	11.78621	0.2241722	0.21481140	2.7611998	21	10 20.0	19.5
519664 2012 XB_{159}	18.2	X	78.06889	337.07586	84.98315	4.22417	0.1630010	0.24719493	2.5144501	21	1 9.6	20.6
519665 2012 XC_{159}	16.8	X	330.27211	86.37778	276.19004	9.29405	0.1245943	0.19022144	2.9943076	21	8 27.2	20.5
519666 2012 XD_{159}	17.2	X	36.01034	346.50314	79.86936	15.95933	0.0723737	0.23275398	2.6174073	21	—	—
519667 2012 XG_{159}	16.6	X	283.64562	49.49612	325.54913	9.31684	0.0621405	0.18131307	3.0916001	21	7 17.9	20.8
519668 2012 YQ_{10}	16.5	X	339.84923	294.92058	108.13166	17.05144	0.1836228	0.21010637	2.8022695	21	11 23.6	19.6
519669 2012 YS_{10}	17.9	X	357.61868	105.34315	323.10747	1.84370	0.1689888	0.21997848	2.7177901	21	—	—
519670 2012 YU_{10}	17.1	X	329.18705	101.10776	336.67014	12.76857	0.1121809	0.21469802	2.7621718	21	12 14.8	20.5
519671 2012 YX_{10}	16.4	X	176.50972	209.28615	39.87784	13.78063	0.1904618	0.18916180	3.0054794	21	12 19.9	21.6
519672 2012 YY_{10}	16.9	X	290.08896	309.40797	99.63092	16.35907	0.2214059	0.19627820	2.9323873	21	8 19.1	20.8
519673 2012 YD_{11}	17.9	X	339.67780	102.95129	27.54484	3.68554	0.0683957	0.22988398	2.6391470	21	—	—
519674 2012 YE_{11}	17.7	X	118.00691	73.02344	341.69090	4.56227	0.0916666	0.25364177	2.4716608	21	2 17.5	20.7
519675 2012 YK_{11}	16.8	X	280.77115	88.77625	306.39772	5.12634	0.1535312	0.18712547	3.0272442	21	7 25.2	20.7
519676 2012 YL_{11}	16.3	X	53.31215	342.42760	301.65072	9.31929	0.0814132	0.18748786	3.0233420	21	9 19.9	20.6
519677 2012 YT_{11}	16.8	X	220.65098	338.74026	97.40117	11.90438	0.0989254	0.17639367	3.1488167	21	7 14.1	21.7
519678 2013 AR_{5}	16.4	X	49.55946	314.32839	272.73554	8.67806	0.0147333	0.17804677	3.1292961	21	6 28.4	20.6
519679 2013 AV_{5}	16.9	X	89.62562	257.20592	79.26479	10.61007	0.2015792	0.23352702	2.6116278	21	—	—
519680 2013 AP_{22}	17.1	X	273.67793	81.68544	128.69239	7.95581	0.1850945	0.22374336	2.6872162	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519681 2013 AN_{48}	16.6	X	158.15529	261.21558	326.89937	13.38363	0.2616463	0.19874846	2.9080388	21	11 8.3	22.1
519682 2013 AS_{93}	16.6	X	309.37050	52.56012	125.86740	14.33093	0.1833565	0.22890482	2.6466677	21	—	—
519683 2013 AC_{104}	17.0	X	338.39394	121.60242	43.90450	8.71999	0.0409539	0.24265162	2.5457393	21	—	—
519684 2013 AT_{117}	17.2	X	333.76315	41.26698	30.57379	3.91881	0.1801479	0.21252347	2.7809816	21	12 16.4	19.9
519685 2013 AA_{121}	16.5	X	277.91869	100.10831	272.87276	8.83758	0.1248535	0.18576947	3.0419576	21	6 26.7	20.6
519686 2013 AO_{172}	16.1	X	343.43747	130.90620	179.00430	10.69466	0.0774257	0.17263537	3.1943527	21	7 13.6	20.4
519687 2013 AZ_{185}	16.9	X	219.98089	267.14877	191.94609	3.15924	0.0436724	0.18302900	3.0722469	21	8 15.2	21.3
519688 2013 AB_{186}	16.9	X	358.79227	108.33528	262.60970	9.24989	0.1138007	0.20276150	2.8695407	21	10 31.2	20.5
519689 2013 AC_{186}	16.2	X	267.74494	127.80862	289.57507	9.52728	0.0489886	0.18578915	3.0417428	21	8 18.3	20.5
519690 2013 AD_{186}	16.6	X	307.28645	337.05139	100.59803	10.37025	0.1086206	0.20508551	2.8478213	21	11 10.4	20.2
519691 2013 AG_{186}	17.0	X	353.90761	147.22471	275.76852	5.12909	0.0186899	0.21149965	2.7899491	21	12 26.9	20.7
519692 2013 AJ_{186}	16.7	X	227.78994	286.33960	116.91694	5.86449	0.1877281	0.17196176	3.2026892	21	6 4.9	22.0
519693 2013 AQ_{186}	17.1	X	22.54642	300.80269	93.47639	5.88648	0.1321826	0.21655533	2.7463558	21	—	—
519694 2013 AQ_{186}	16.8	X	4.74031	266.73310	135.11118	14.05835	0.1892248	0.21218924	2.7839011	21	—	—
519695 2013 AU_{186}	16.6	X	133.17119	213.55364	324.11837	4.45868	0.0806761	0.17079167	3.2173002	21	8 16.5	21.3
519696 2013 AV_{186}	17.2	X	304.09143	53.90971	96.33230	3.74640	0.0275734	0.22226411	2.6991260	21	—	—
519697 2013 AG_{187}	16.8	X	223.86416	349.62907	144.97831	16.99260	0.1115951	0.19098033	2.9863701	21	10 1.8	21.4
519698 2013 AK_{187}	17.7	X	335.38633	263.11325	201.92520	4.17141	0.0443840	0.21779757	2.7359030	21	—	—
519699 2013 AL_{187}	17.3	X	220.26506	203.57450	224.57698	4.12775	0.1729838	0.17271560	3.1933633	21	6 28.1	22.4
519700 2013 AM_{187}	16.7	X	113.95053	305.83658	288.73818	9.32748	0.0594339	0.18465098	3.0542293	21	9 28.4	21.4
519701 2013 AS_{187}	17.5	X	347.44750	135.03691	298.47962	6.69097	0.1160326	0.21429867	2.7656023	21	—	—
519702 2013 AT_{187}	17.0	X	212.84808	200.03531	302.94645	11.92802	0.0451239	0.18911682	3.0059560	21	9 25.7	21.6
519703 2013 AW_{187}	16.5	X	159.17013	36.19118	130.26670	18.21496	0.1132280	0.17748292	3.1359203	21	9 3.2	21.5
519704 2013 AZ_{187}	17.0	X	126.62077	298.65948	282.66660	3.26525	0.1556662	0.18322157	3.0700938	21	10 6.0	21.9
519705 2013 AA_{188}	17.5	X	279.65406	256.36775	275.03911	1.69072	0.0250251	0.22149773	2.7053483	21	—	—
519706 2013 AE_{188}	17.8	X	275.81312	17.48132	162.31252	5.18599	0.0919838	0.22005669	2.7171461	21	—	—
519707 2013 AH_{188}	16.7	X	228.33963	286.05434	161.88857	5.44920	0.1064853	0.17794764	3.1304580	21	8 4.4	21.3
519708 2013 AJ_{188}	16.9	X	249.68164	121.79590	126.99800	15.36778	0.1409729	0.22952795	2.6418754	21	—	—
519709 2013 AK_{188}	16.5	X	209.97689	287.33877	179.41797	8.80484	0.0773715	0.17662730	3.1460394	21	8 9.3	21.3
519710 2013 BP_{22}	15.9	X	308.88120	260.18349	163.48367	14.08634	0.1375336	0.20136599	2.8827831	21	10 21.7	19.4
519711 2013 BZ_{28}	16.8	X	341.52243	261.45750	247.99497	9.52174	0.0826699	0.23478500	2.6022907	21	—	—
519712 2013 BP_{44}	16.7	X	291.56945	62.22730	129.44086	16.91899	0.1935878	0.22460919	2.6803060	21	—	—
519713 2013 BP_{74}	17.0	X	33.95982	84.27085	289.60950	2.47384	0.1051133	0.21450402	2.7638370	21	12 29.7	20.7
519714 2013 BK_{80}	17.4	X	285.62361	59.43873	136.35822	13.56131	0.2172852	0.22633386	2.6666726	21	—	—
519715 2013 BV_{83}	16.2	X	128.16752	249.14315	336.59350	9.82437	0.0531230	0.18134467	3.0912409	21	10 4.1	20.8
519716 2013 BY_{83}	16.4	X	23.09225	148.23711	121.20091	10.56233	0.0174879	0.17059145	3.2198171	21	7 18.3	20.8
519717 2013 BA_{84}	16.8	X	145.63454	48.03191	142.63617	1.10966	0.1030510	0.18043972	3.1015679	21	9 16.6	21.5
519718 2013 BB_{84}	17.1	X	208.43668	260.28851	323.97805	6.75014	0.1614905	0.20981289	2.8048821	21	12 26.2	21.4
519719 2013 BC_{84}	16.7	X	248.44533	292.11492	122.36628	10.28256	0.1345438	0.17713518	3.1400230	21	7 13.1	21.5
519720 2013 BF_{84}	16.4	X	212.65814	117.00155	349.63274	13.48960	0.2465076	0.17165601	3.2064911	21	8 6.9	22.0
519721 2013 BH_{84}	16.8	X	121.69652	329.60755	269.50934	4.47174	0.0931588	0.18676210	3.0311694	21	10 18.6	21.5
519722 2013 BM_{84}	16.8	X	131.52231	317.21035	279.46398	8.24437	0.0114876	0.19193901	2.9764177	21	10 19.9	21.2
519723 2013 BN_{84}	16.4	X	325.92999	214.68703	165.30718	8.60220	0.0997767	0.18757202	3.0224376	21	9 19.5	20.1
519724 2013 CK_{6}	17.4	X	313.52684	38.17819	144.72248	14.10967	0.0396679	0.23461514	2.6035466	21	—	—
519725 2013 CV_{7}	16.5	X	245.83150	278.68252	141.80533	11.44384	0.0847924	0.17603130	3.1531366	21	7 23.2	21.2
519726 2013 CA_{26}	17.4	X	254.74153	288.12418	309.65050	11.60574	0.2256327	0.22417359	2.6837769	21	—	—
519727 2013 CL_{179}	16.9	X	1.68567	8.03349	118.37995	8.29903	0.1205133	0.22999520	2.6382961	21	—	—
519728 2013 CX_{192}	16.5	X	53.84015	279.47291	30.93405	17.22542	0.0178755	0.19008793	2.9957095	21	10 20.9	20.7
519729 2013 CH_{207}	16.9	X	251.63771	312.26354	276.64812	7.33517	0.2376609	0.21574836	2.7531997	21	—	—
519730 2013 CR_{207}	17.2	X	224.84516	150.53754	97.87467	11.66644	0.0943275	0.21858530	2.7293260	21	—	—
519731 2013 CE_{224}	16.9	X	311.20120	80.63952	64.49802	5.53893	0.1368867	0.21528773	2.7571255	21	—	—
519732 2013 CK_{224}	17.3	X	164.38704	68.80248	264.37459	1.27798	0.0812583	0.22862298	2.6488425	21	1 3.7	21.1
519733 2013 CL_{225}	17.1	X	225.36565	325.91070	300.98212	1.15668	0.0743728	0.22535618	2.6743797	21	—	—
519734 2013 CZ_{225}	16.7	X	218.89618	137.51766	352.14550	11.06676	0.0836361	0.18196235	3.0842414	21	9 17.7	21.3
519735 2013 CA_{226}	16.7	X	197.25082	297.65456	352.72707	9.83596	0.0788373	0.22322385	2.6913839	21	—	—
519736 2013 CB_{226}	16.3	X	93.80365	225.15586	91.28625	3.09416	0.1058201	0.19773415	2.9179752	21	12 25.2	20.6
519737 2013 CE_{226}	15.8	X	125.28058	306.37536	318.83548	9.19933	0.1812157	0.18720070	3.0264331	21	11 26.4	20.9
519738 2013 CH_{226}	16.5	X	160.11769	214.73818	4.79686	15.58686	0.0595849	0.19149984	2.9809666	21	10 31.2	21.2
519739 2013 CJ_{226}	16.9	X	154.11382	151.13728	75.62555	1.50616	0.1703936	0.18415270	3.0597363	21	11 7.5	22.0
519740 2013 CK_{226}	16.6	X	114.22717	54.57819	206.28891	4.57786	0.0975474	0.18199428	3.0838807	21	11 7.9	21.3
519741 2013 CM_{226}	17.3	X	290.27709	284.45708	289.07280	2.43028	0.1347051	0.22942430	2.6426710	21	—	—
519742 2013 CN_{226}	17.1	X	234.63021	10.84887	252.14139	2.12900	0.1328020	0.22639673	2.6661789	21	—	—
519743 2013 CO_{226}	16.6	X	155.11159	231.33532	324.28414	9.51958	0.0457106	0.18142484	3.0903302	21	9 26.8	21.3
519744 2013 CS_{226}	17.0	X	220.26443	31.58740	239.59408	3.89323	0.1318168	0.22490740	2.6779361	21	—	—
519745 2013 CV_{226}	16.5	X	234.51239	298.68251	160.36055	18.81871	0.1546607	0.17916879	3.1162179	21	8 19.7	21.4
519746 2013 CX_{226}	16.1	X	239.26321	340.57746	191.55171	13.91423	0.1389271	0.18357265	3.0661782	21	11 25.9	20.7
519747 2013 CY_{226}	15.7	X	141.82218	182.07681	75.38329	12.42349	0.0721298	0.17357056	3.1828683	21	11 29.4	20.6
519748 2013 CM_{227}	17.8	X	79.41039	278.80723	164.83090	11.91133	0.1608252	0.24105975	2.5569344	21	2 11.0	20.7
519749 2013 CS_{227}	16.3	X	213.51135	274.25487	190.13702	10.04724	0.2276804	0.17529831	3.1619201	21	7 30.7	21.8
519750 2013 CT_{227}	17.0	X	118.27008	332.14566	315.67266	10.99477	0.0232203	0.19755078	2.9197806	21	12 10.6	21.4
519751 2013 CX_{227}	16.9	X	213.39113	35.17675	270.01578	3.62118	0.1071609	0.23222675	2.6213673	21	1 20.8	20.9
519752 2013 CY_{227}	16.9	X	299.71356	276.62071	243.30004	3.07333	0.0386209	0.21565349	2.7540071	21	—	—
519753 2013 CZ_{227}	17.0	X	276.50694	106.58123	322.56832	7.89112	0.1152522	0.18294095	3.0732326	21	9 5.3	21.1
519754 2013 CC_{228}	16.1	X	155.42996	219.79509	319.20308	6.45235	0.0701703	0.17335264	3.1855353	21	9 8.8	21.0
519755 2013 CD_{228}	17.2	X	277.04112	96.63803	335.67521	13.10578	0.2609618	0.18792747	3.0186253	21	8 22.3	21.4
519756 2013 CE_{228}	16.7	X	19.43037	276.46833	172.84147	14.19863	0.0400618	0.21951582	2.7216076	21	—	—
519757 2013 DD_{17}	17.5	X	255.97057	97.89266	156.66250	12.21749	0.1522816	0.22925094	2.6440032	21	—	—
519758 2013 DJ_{17}	16.5	X	178.73253	234.03499	286.52823	2.57667	0.0678077	0.17493602	3.1662842	21	9 11.8	21.4
519759 2013 DK_{17}	16.6	X	261.42132	124.41336	326.34386	8.08783	0.0370863	0.18000739	3.1065320	21	9 23.1	20.9
519760 2013 DM_{17}	16.6	X	228.10365	110.68559	17.81479	14.19093	0.0759262	0.18093981	3.0958504	21	9 29.8	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519761 2013 DN_{17}	16.6	X	172.62373	253.01520	311.01792	3.40462	0.0879913	0.18423249	3.0588527	21	10 27.9	21.3
519762 2013 EE_{24}	17.0	X	222.17575	121.74880	143.77007	8.28486	0.1850668	0.21636982	2.7479253	21	—	—
519763 2013 EV_{62}	17.4	X	94.42719	245.02352	170.49599	3.98660	0.0692178	0.23136666	2.6278598	21	1 17.4	20.6
519764 2013 EL_{75}	17.3	X	299.74655	131.93272	19.73363	7.89510	0.1565618	0.21129793	2.7917245	21	—	—
519765 2013 EA_{94}	17.0	X	284.74978	333.23659	201.25449	15.43235	0.2149578	0.21286681	2.7779904	21	—	—
519766 2013 EQ_{96}	17.1	X	118.06623	233.57013	129.50250	2.97215	0.0927297	0.21848821	2.7301345	21	—	—
519767 2013 ED_{132}	17.0	X	339.18318	258.91396	146.58403	1.91339	0.1029968	0.18998382	2.9968037	21	11 13.7	20.5
519768 2013 EB_{151}	16.2	X	358.80730	189.16377	201.09433	7.42353	0.0572554	0.17867841	3.1219169	21	11 19.7	20.4
519769 2013 EV_{155}	17.3	X	192.86164	208.66892	76.78232	4.62563	0.0656111	0.21207900	2.7848658	21	—	—
519770 2013 EO_{156}	17.5	X	14.91415	259.20280	213.23723	4.11134	0.1607479	0.22827655	2.6515217	21	—	—
519771 2013 ER_{156}	17.4	X	39.74422	220.87915	237.14880	4.50670	0.0940707	0.23013763	2.6372074	21	—	—
519772 2013 EX_{156}	16.6	X	137.79451	135.81465	109.19763	15.64357	0.2443341	0.17571886	3.1568731	21	11 20.2	22.3
519773 2013 EC_{157}	16.3	X	163.07477	44.11219	152.62273	4.71577	0.1345480	0.17391791	3.1786291	21	10 11.6	21.5
519774 2013 EL_{157}	17.0	X	151.42950	148.24616	114.15141	2.63358	0.1875623	0.18682523	3.0304865	21	12 15.9	22.1
519775 2013 EN_{157}	16.2	X	54.09046	174.84459	163.45475	11.55555	0.1535216	0.18164903	3.0877870	21	12 12.2	20.8
519776 2013 EO_{157}	16.7	X	125.98769	126.63880	163.41562	10.58077	0.0720912	0.19055707	2.9907906	21	12 23.6	21.4
519777 2013 ER_{157}	16.7	X	145.88489	106.11021	186.12990	5.96547	0.2057546	0.19783668	2.9169669	21	—	—
519778 2013 ET_{157}	16.8	X	215.63039	108.52586	32.43863	5.49116	0.1134679	0.17827230	3.1266562	21	9 26.9	21.5
519779 2013 EX_{157}	16.8	X	228.87574	140.80753	25.76020	11.64533	0.1124038	0.18992445	2.9974282	21	11 8.5	21.3
519780 2013 EA_{158}	16.5	X	126.67961	83.22624	154.54064	9.90605	0.0452963	0.17532899	3.1615513	21	10 22.5	21.2
519781 2013 EB_{158}	16.5	X	206.91440	101.03526	38.78373	10.43907	0.1728033	0.17604443	3.1529798	21	9 15.6	21.7
519782 2013 FF_{16}	17.2	X	293.35730	130.39997	27.22602	8.61297	0.2122105	0.20979635	2.8050295	21	—	—
519783 2013 FP_{21}	16.9	X	210.79606	94.09121	191.37893	16.85695	0.4546121	0.20222148	2.8746470	21	1 1.8	23.0
519784 2013 FQ_{29}	16.4	X	228.64130	101.00382	38.57269	9.76004	0.0342366	0.17527586	3.1621902	21	10 17.7	20.9
519785 2013 FR_{29}	17.3	X	308.02664	79.53136	138.95443	2.74103	0.1413313	0.22532712	2.6746097	21	1 11.4	21.0
519786 2013 FU_{29}	17.3	X	312.53873	79.88240	174.03563	15.63546	0.1223059	0.24050041	2.5608974	21	3 2.2	20.7
519787 2013 GB_{39}	17.0	X	239.37215	67.16388	184.02466	8.79237	0.1381058	0.21568726	2.7537197	21	—	—
519788 2013 GR_{39}	16.3	X	1.46324	181.34888	199.12324	15.67086	0.0690237	0.17994168	3.1072882	21	11 12.8	20.4
519789 2013 GX_{52}	17.2	X	170.67671	115.12476	191.03817	14.55284	0.1533619	0.20361673	2.8615000	21	—	—
519790 2013 GQ_{73}	16.7	X	13.50665	209.93882	173.45050	9.24539	0.0511821	0.18699770	3.0286229	21	12 2.6	20.9
519791 2013 GX_{76}	17.0	X	205.61588	98.24901	182.16969	14.04569	0.1395546	0.21198075	2.7857262	21	—	—
519792 2013 GP_{100}	18.4	X	59.96992	174.95310	62.37988	23.43624	0.0759239	0.38685111	1.8654065	21	8 31.2	20.9
519793 2013 GS_{109}	17.4	X	28.05973	145.08005	114.11165	8.15205	0.1026470	0.26134842	2.4228292	21	7 21.6	19.9
519794 2013 GK_{118}	17.3	X	183.89792	277.30718	23.26403	4.03596	0.0800746	0.21063402	2.7975877	21	—	—
519795 2013 GL_{140}	16.5	X	148.64390	211.63876	94.82486	11.70469	0.1823732	0.18946654	3.0022558	21	—	—
519796 2013 GN_{140}	16.9	X	198.11939	169.68235	73.59526	10.92036	0.1537918	0.18983509	2.9983688	21	—	—
519797 2013 GO_{140}	16.6	X	284.65986	341.29893	140.24173	9.09142	0.0204638	0.18460464	3.0547404	21	12 6.4	20.9
519798 2013 GP_{140}	17.2	X	262.88170	225.96811	61.00319	16.04134	0.1325358	0.22348612	2.6892779	21	2 24.9	21.6
519799 2013 GQ_{140}	16.2	X	164.90222	159.81367	112.65161	11.73891	0.0728403	0.18710244	3.0274926	21	—	—
519800 2013 GU_{140}	16.5	X	133.11033	18.53479	34.80726	33.85184	0.1789351	0.23488390	2.6015602	21	4 4.3	20.8
519801 2013 GB_{141}	16.8	X	192.78813	29.02371	207.36926	0.14561	0.0523110	0.18892191	3.0080231	21	12 30.5	21.3
519802 2013 GC_{141}	17.6	X	287.64699	232.64676	60.32883	8.27608	0.1731096	0.23475298	2.6025274	21	3 21.1	21.4
519803 2013 GJ_{141}	17.0	X	170.77386	79.70232	148.87761	1.42155	0.1726572	0.17683912	3.1435267	21	11 22.5	22.1
519804 2013 GL_{141}	17.7	X	274.03637	120.64086	194.95905	4.03071	0.1688824	0.23575269	2.5951648	21	3 30.6	21.4
519805 2013 HW_{18}	18.5	X	240.21204	260.59525	165.25661	23.06436	0.0600899	0.38977378	1.8560698	21	8 1.3	20.7
519806 2013 HN_{31}	16.5	X	261.07726	157.43570	352.66743	10.14031	0.0431167	0.19022123	2.9943097	21	12 6.9	20.8
519807 2013 HM_{57}	16.9	X	84.98837	300.84296	351.64165	6.61862	0.0312829	0.17684496	3.1434575	21	11 2.9	21.4
519808 2013 HP_{58}	16.5	X	358.41979	5.45144	354.86964	8.89059	0.0793614	0.17103446	3.2142548	21	10 9.5	20.7
519809 2013 HK_{68}	17.0	X	97.80261	132.02963	255.25839	4.42595	0.0777817	0.21248480	2.7813190	21	—	—
519810 2013 HG_{107}	16.6	X	217.99314	86.29320	32.29883	9.15266	0.1890062	0.17009085	3.2261317	21	8 29.3	21.9
519811 2013 HG_{113}	16.4	X	295.13072	204.05672	208.57724	8.10056	0.0684864	0.16771936	3.2564712	21	9 14.3	20.8
519812 2013 HW_{115}	17.3	X	234.59242	180.00102	44.03665	3.18659	0.0887863	0.20281494	2.8690366	21	—	—
519813 2013 HC_{116}	17.2	X	235.85718	30.47492	201.96244	14.82521	0.0891193	0.20549771	2.8440117	21	—	—
519814 2013 HL_{124}	16.8	X	328.61929	86.61575	353.15552	9.83246	0.1469781	0.19310290	2.9644458	21	12 9.7	20.3
519815 2013 HQ_{136}	17.4	X	91.55267	186.15540	233.87209	4.36089	0.0476441	0.22398957	2.6852467	21	1 17.8	20.8
519816 2013 HK_{145}	17.1	X	208.24138	56.72523	238.91689	3.25123	0.1828286	0.21187660	2.7866390	21	1 9.1	21.7
519817 2013 HN_{157}	16.7	X	140.28257	70.16635	265.63830	4.57701	0.0741764	0.19989155	2.8969417	21	—	—
519818 2013 HQ_{157}	16.7	X	180.52020	92.09510	135.24392	12.23149	0.0772802	0.18091487	3.0961348	21	12 5.9	21.6
519819 2013 HR_{157}	17.5	X	291.00265	176.95644	111.98191	11.50901	0.1628419	0.23344634	2.6122296	21	3 22.2	21.3
519820 2013 HT_{157}	16.6	X	226.96020	19.60231	164.12838	12.87556	0.0667361	0.18258414	3.0772351	21	12 5.3	21.3
519821 2013 HD_{158}	16.6	X	198.93656	120.22695	125.83332	15.23061	0.2328661	0.19000378	2.9965939	21	—	—
519822 2013 HF_{158}	15.8	X	170.62453	186.30211	101.91476	10.86502	0.0867435	0.17958809	3.1113654	21	—	—
519823 2013 JC_{18}	19.3	X	315.26281	149.18679	197.30292	18.53305	0.0841896	0.38514891	1.8708987	21	7 21.2	21.3
519824 2013 JY_{35}	19.3	X	45.97302	222.84135	226.59570	30.62655	0.6687177	0.60400884	1.3860339	21	—	—
519825 2013 JN_{66}	16.6	X	134.90900	231.85715	81.74969	6.91786	0.1272659	0.18949843	3.0019190	21	—	—
519826 2013 JX_{66}	16.7	X	254.25865	248.35676	59.33799	15.10322	0.0650609	0.22876165	2.6477719	21	3 19.6	20.8
519827 2013 JB_{67}	16.4	X	216.96112	333.54876	197.74154	16.30608	0.0867717	0.17325681	3.1867097	21	11 5.4	21.2
519828 2013 JC_{67}	16.5	X	134.33415	118.36112	151.83733	10.98702	0.0725241	0.17388876	3.1789842	21	12 7.6	21.5
519829 2013 JE_{67}	16.5	X	175.37605	76.50476	205.90567	12.57000	0.1326326	0.18990393	2.9976442	21	—	—
519830 2013 JG_{67}	16.9	X	141.72287	161.41524	128.95243	12.36164	0.0851381	0.18091748	3.0961051	21	—	—
519831 2013 JH_{67}	16.3	X	163.24462	50.42010	198.70519	15.61111	0.0455972	0.17544024	3.1602146	21	12 11.7	21.2
519832 2013 JJ_{67}	16.9	X	235.06369	86.09020	117.88654	12.29362	0.0919941	0.18793735	3.0185195	21	—	—
519833 2013 JN_{67}	16.6	X	93.09956	138.44366	212.32550	16.20686	0.1219995	0.18124067	3.0924234	21	—	—
519834 2013 KH_{19}	16.0	X	213.86283	68.65526	282.25217	13.83920	0.1650374	0.20376853	2.8600787	21	3 13.0	21.0
519835 2013 KL_{19}	16.0	X	184.52949	10.89020	205.90677	23.95982	0.1753054	0.17416339	3.1756414	21	11 20.4	21.4
519836 2013 LL_{1}	15.6	X	99.58953	253.45411	102.71081	27.60066	0.1955237	0.18491373	3.0513354	21	—	—
519837 2013 LX_{24}	18.5	X	221.46371	355.20950	84.30236	24.26286	0.0735859	0.38340717	1.8765605	21	7 28.2	20.9
519838 2013 LZ_{26}	16.8	X	158.67355	211.86827	122.69474	16.70027	0.2651344	0.19478171	2.9473877	21	1 21.2	21.8
519839 2013 LM_{28}	16.8	X	304.02076	341.85687	235.93329	8.80643	0.1376426	0.21771981	2.7365544	21	1 6.7	20.7
519840 2013 LC_{30}	18.1	X	325.52613	95.02648	217.21669	20.67973	0.0886778	0.37145671	1.9165960	21	6 11.7	19.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519841 2013 LJ_{30}	16.9	X	190.98279	161.54945	76.37832	6.42014	0.1025017	0.18547837	3.0451396	21	12 25.6	21.5
519842 2013 LP_{32}	16.3	X	136.73621	221.87995	122.48132	13.32710	0.2956615	0.18939350	3.0030277	21	1 18.0	21.1
519843 2013 LL_{36}	17.0	X	313.97380	225.37142	50.16059	4.12686	0.1830088	0.22830432	2.6513067	21	3 28.2	20.2
519844 2013 LM_{36}	17.0	X	357.01518	101.51856	175.85208	12.44602	0.1199485	0.23190147	2.6238181	21	6 20.9	20.1
519845 2013 LO_{36}	16.8	X	325.42046	75.61531	228.79116	11.47462	0.1327496	0.23115854	2.6294369	21	6 1.2	19.8
519846 2013 LP_{36}	16.6	X	213.43692	43.06042	209.52562	10.26956	0.1848143	0.18331814	3.0690155	21	—	—
519847 2013 MF_{3}	17.8	X	128.26838	252.71504	240.46175	20.31363	0.0638757	0.36869903	1.9261409	21	6 8.1	19.7
519848 2013 MV_{12}	17.3	X	351.58696	107.52499	204.87587	9.71225	0.1512901	0.24524764	2.5277424	21	7 30.3	19.9
519849 2013 MW_{12}	17.3	X	358.95342	42.37276	250.71571	12.72915	0.1734971	0.24333199	2.5409917	21	7 15.7	19.7
519850 2013 MZ_{12}	17.2	X	252.28828	218.27342	102.52321	16.24012	0.1581617	0.21722516	2.7407071	21	3 26.1	21.8
519851 2013 MB_{13}	17.0	X	194.92960	135.36637	103.81008	2.49645	0.0921138	0.17524892	3.1625142	21	12 30.1	21.9
519852 2013 MK_{13}	17.5	X	268.71247	132.32320	208.47673	5.25895	0.1880062	0.22259751	2.6964302	21	4 25.3	21.6
519853 2013 MP_{13}	15.8	X	273.74419	280.92419	255.70261	8.14731	0.0757102	0.17184113	3.2041878	21	—	—
519854 2013 MQ_{13}	17.1	X	215.22606	298.09172	247.65996	6.45696	0.0545693	0.27937117	2.3174747	21	12 11.7	20.1
519855 2013 MR_{13}	17.0	X	330.89600	56.29974	266.32446	8.33591	0.0349965	0.24075653	2.5590808	21	7 15.9	20.1
519856 2013 NK_{11}	15.8	X	97.51750	245.93290	98.08020	11.69577	0.0886002	0.17450108	3.1715432	21	—	—
519857 2013 NF_{28}	17.6	X	304.42505	15.32791	314.98367	4.16676	0.1679264	0.23648547	2.5898011	21	5 27.7	20.7
519858 2013 NH_{28}	17.0	X	184.99989	165.67756	77.76948	3.46805	0.2235555	0.17407919	3.1766654	21	12 17.8	22.4
519859 2013 NT_{28}	17.9	X	337.52810	99.33916	272.49831	5.34001	0.1500387	0.25869064	2.4393956	21	10 4.7	20.1
519860 2013 NW_{28}	17.2	X	261.48586	223.59750	121.46272	6.29088	0.1757623	0.22561352	2.6723457	21	4 26.9	21.3
519861 2013 NX_{28}	16.1	X	120.48371	204.82930	119.67150	18.25183	0.1310648	0.17315372	3.1879745	21	—	—
519862 2013 NF_{29}	16.8	X	9.66566	328.42927	353.58121	7.72747	0.1967544	0.23740431	2.5831144	21	9 28.5	19.2
519863 2013 NG_{29}	16.7	X	70.18630	290.31481	9.06353	11.22579	0.0644120	0.24725729	2.5140273	21	11 7.5	20.2
519864 2013 NQ_{29}	16.9	X	253.07325	264.71163	318.42144	16.12054	0.1221236	0.18405185	3.0608538	21	—	—
519865 2013 NS_{29}	17.8	X	287.56972	24.25398	349.19290	2.91562	0.0605459	0.24121199	2.5558584	21	7 21.8	21.0
519866 2013 NV_{29}	18.0	X	79.61881	178.72542	104.21033	6.01322	0.1042114	0.26760916	2.3848921	21	11 11.6	21.3
519867 2013 NC_{30}	17.6	X	324.96245	282.35658	55.33466	4.12089	0.0777886	0.24361591	2.5390170	21	7 27.3	20.4
519868 2013 ND_{30}	17.7	X	228.55545	333.28690	71.79444	4.70824	0.0649400	0.23207804	2.6224870	21	6 15.3	21.2
519869 2013 NP_{30}	17.3	X	287.43242	155.52950	94.91382	6.05013	0.1478342	0.20563647	2.8427322	21	1 31.4	21.5
519870 2013 NS_{30}	16.1	X	307.88554	204.61083	327.91249	13.62276	0.0281163	0.18071332	3.0984365	21	—	—
519871 2013 NC_{31}	16.0	X	147.65947	292.44388	323.56344	7.96739	0.0384295	0.15535254	3.4270766	21	11 28.2	21.2
519872 2013 NE_{31}	16.6	X	0.59187	334.77088	117.52687	12.64722	0.0823364	0.16917550	3.2377581	21	—	—
519873 2013 NJ_{31}	17.2	X	309.76272	7.05601	10.30453	14.05199	0.1613705	0.23072784	2.6327081	21	8 22.5	20.3
519874 2013 NK_{31}	16.8	X	235.95462	19.60662	49.86870	5.93264	0.0469341	0.22065750	2.7122117	21	7 31.4	20.6
519875 2013 NL_{31}	16.2	X	200.00428	302.26349	44.05423	11.98496	0.1135011	0.18334200	3.0687492	21	3 10.9	21.2
519876 2013 NP_{31}	17.6	X	319.81179	149.15839	150.59915	3.51859	0.1877410	0.23184422	2.6242500	21	5 8.1	20.5
519877 2013 NX_{31}	16.4	X	227.02325	81.68135	149.20336	16.48645	0.0471470	0.17489068	3.1668314	21	—	—
519878 2013 NO_{32}	18.4	X	72.24369	117.39260	159.29661	6.43344	0.1323173	0.26300835	2.4126243	21	10 28.7	21.7
519879 2013 NY_{32}	16.8	X	180.22130	348.73886	294.23251	8.55692	0.0720935	0.17549160	3.1595979	21	—	—
519880 2013 NB_{33}	17.4	X	171.70604	155.27461	233.75538	1.16986	0.0927745	0.20488721	2.8496585	21	3 24.9	21.8
519881 2013 OH_{2}	18.6	X	120.13993	50.58461	111.46914	24.53918	0.1155513	0.36976030	1.9224536	21	7 20.5	20.6
519882 2013 OH_{3}	18.0	X	143.84665	9.81543	141.81823	24.26491	0.0491286	0.37008138	1.9213415	21	7 30.1	20.1
519883 2013 OX_{10}	17.0	X	189.36262	69.06550	193.62923	13.85668	0.2841531	0.17980407	3.1088734	21	—	—
519884 2013 OR_{12}	16.6	X	98.10130	184.49517	169.37706	11.10662	0.0794704	0.16961243	3.2321953	21	—	—
519885 2013 OT_{12}	16.8	X	67.88044	31.44486	242.06869	12.10186	0.1066376	0.24184260	2.5514135	21	10 6.4	20.4
519886 2013 OV_{12}	17.1	X	279.12918	72.32303	350.59972	12.88634	0.1366444	0.23366890	2.6105706	21	9 5.1	20.2
519887 2013 OW_{12}	16.2	X	173.71513	153.57738	203.79530	5.09328	0.1577987	0.18020930	3.1042111	21	2 22.2	21.3
519888 2013 OY_{12}	16.3	X	210.14116	137.60976	203.34918	12.40864	0.1471071	0.18575375	3.0421292	21	3 4.8	21.4
519889 2013 OZ_{12}	16.3	X	164.32098	302.82773	48.29118	0.31512	0.1627570	0.17497727	3.1657865	21	2 9.5	21.3
519890 2013 OA_{13}	16.4	X	185.10851	238.42014	110.69524	3.66544	0.2189507	0.18293164	3.0733368	21	2 26.7	21.6
519891 2013 OB_{13}	17.2	X	21.28962	263.78714	118.60096	6.61477	0.1382253	0.25880815	2.4386572	21	—	—
519892 2013 OC_{13}	17.3	X	29.20250	305.75839	81.29770	6.61268	0.1364345	0.26224652	2.4172945	21	—	—
519893 2013 OF_{13}	16.7	X	227.37695	279.55182	52.83155	2.73543	0.0670050	0.20314579	2.8659207	21	3 15.9	21.0
519894 2013 PQ_{20}	18.6	X	89.32124	82.06881	138.54197	22.87699	0.1392477	0.37620377	1.9004391	21	9 16.9	21.0
519895 2013 PK_{79}	16.2	X	190.01021	335.21957	325.49274	16.68085	0.1782637	0.18515559	3.0486776	21	1 7.2	21.4
519896 2013 PX_{79}	17.1	X	29.14653	8.99618	335.28992	7.43765	0.1013790	0.26213451	2.4179831	21	11 21.9	20.2
519897 2013 PE_{80}	18.1	X	52.28016	107.47391	188.69156	5.22400	0.1296718	0.26012838	2.4303989	21	10 27.2	21.0
519898 2013 PF_{80}	16.0	X	143.65197	251.51481	145.19762	10.14967	0.1367774	0.19309391	2.9645378	21	3 12.6	20.5
519899 2013 PG_{80}	16.3	X	123.67796	89.23074	299.92965	8.49985	0.1031270	0.18545614	3.0453829	21	2 4.4	20.8
519900 2013 PK_{80}	16.9	X	334.25869	291.25207	338.25561	13.77720	0.1181621	0.22258320	2.6965457	21	4 22.3	20.4
519901 2013 PL_{80}	16.5	X	193.39949	195.15432	79.50200	2.13989	0.1481264	0.17504460	3.1649746	21	—	—
519902 2013 PN_{80}	17.6	X	197.61273	69.22704	159.69995	5.42197	0.0798794	0.28217965	2.3020721	21	—	—
519903 2013 PR_{80}	17.5	X	330.55343	172.47238	158.05003	4.90922	0.1686139	0.23746369	2.5826838	21	7 14.7	20.2
519904 2013 PU_{80}	17.1	X	313.92249	111.78529	160.86210	3.64824	0.0503541	0.21319138	2.7751702	21	4 14.9	20.8
519905 2013 PZ_{81}	18.0	X	350.60417	46.50753	352.61254	7.95327	0.0938073	0.26338486	2.4103245	21	12 8.6	20.8
519906 2013 PF_{82}	17.7	X	351.72415	76.83158	198.67486	3.75738	0.0835061	0.22723033	2.6596543	21	6 10.2	20.8
519907 2013 PO_{82}	16.2	X	136.87937	68.34205	316.28199	8.88088	0.0599099	0.18655364	3.0334271	21	2 9.1	20.5
519908 2013 QS_{51}	16.8	X	265.17609	96.38478	177.65034	10.41846	0.0657924	0.19070790	2.9892134	21	2 13.4	21.3
519909 2013 QM_{64}	17.2	X	340.34946	37.97457	319.79905	15.28511	0.1554666	0.25155469	2.4853130	21	9 13.1	19.6
519910 2013 QA_{96}	17.2	X	253.27370	180.63066	186.47924	4.87908	0.0751172	0.22403237	2.6849047	21	5 25.9	21.1
519911 2013 QD_{96}	17.0	X	334.67531	121.33063	237.55106	12.11011	0.1743931	0.24371542	2.5383259	21	8 31.7	19.7
519912 2013 QH_{96}	18.1	X	336.60193	88.89315	326.29674	9.01401	0.1133754	0.26509881	2.3999243	21	12 10.1	20.7
519913 2013 QJ_{96}	17.6	X	29.46902	47.62638	354.50509	7.15436	0.1037014	0.28101359	2.3084360	21	—	—
519914 2013 RL_{1}	19.2	X	321.55427	139.87240	169.63747	23.18238	0.0765701	0.35300315	1.9828217	21	6 7.1	21.7
519915 2013 RD_{104}	16.9	X	253.16987	175.50731	185.56960	3.51130	0.1075735	0.21364520	2.7712388	21	5 14.5	21.0
519916 2013 RE_{104}	17.8	X	7.89088	229.89778	178.16333	6.62310	0.1126504	0.26739348	2.3861744	21	—	—
519917 2013 RG_{104}	17.0	X	324.07926	342.03325	357.58866	13.22527	0.1904089	0.23500702	2.6006515	21	7 17.4	19.9
519918 2013 RJ_{104}	16.3	X	184.07503	303.53073	342.54913	12.23452	0.1308171	0.17152799	3.2080864	21	—	—
519919 2013 RN_{104}	17.9	X	18.99470	86.81930	308.87547	6.06477	0.1178855	0.27133737	2.3629959	21	—	—
519920 2013 RP_{104}	18.1	X	358.18047	68.73882	317.52157	4.50611	0.1216140	0.26158563	2.4213642	21	12 6.5	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
519921 2013 RX_{104}	17.0	X	276.45673	174.40083	204.47901	5.71327	0.0397040	0.22588687	2.6701893	21	7 14.6	20.7
519922 2013 RY_{104}	17.0	X	62.15295	258.64146	1.28584	12.62575	0.0473091	0.23775368	2.5805833	21	9 7.6	20.3
519923 2013 RZ_{104}	16.9	X	256.72261	6.22276	334.60411	7.33806	0.2112605	0.21188050	2.7866049	21	4 8.8	21.4
519924 2013 RA_{105}	17.6	X	296.41504	19.66874	327.15770	4.79282	0.1637074	0.22542739	2.6738165	21	6 9.5	21.0
519925 2013 RB_{105}	16.7	X	141.09425	157.12066	221.71022	1.01294	0.0755356	0.17854416	3.1234816	21	2 10.0	21.3
519926 2013 RC_{105}	17.4	X	311.87536	185.63777	187.52059	15.00224	0.1098075	0.23678230	2.5876363	21	8 17.1	20.6
519927 2013 RD_{105}	17.2	X	292.13839	127.87303	180.25884	3.40244	0.0777314	0.20997940	2.8033991	21	4 28.1	20.9
519928 2013 RE_{105}	17.5	X	291.44765	225.63062	168.52608	4.70113	0.1670839	0.23466809	2.6031549	21	8 6.9	20.5
519929 2013 RF_{105}	17.1	X	268.26148	276.43991	71.45216	1.64394	0.0845810	0.21394231	2.7686726	21	5 17.7	20.8
519930 2013 RS_{105}	18.1	X	304.14296	202.01426	251.55771	1.91161	0.1355000	0.25954013	2.4340698	21	12 4.3	20.2
519931 2013 RT_{105}	17.3	X	308.52204	28.62599	339.43124	10.60461	0.1410228	0.23757752	2.5818588	21	8 5.8	20.2
519932 2013 RW_{105}	17.3	X	264.79457	223.55992	194.78018	4.05830	0.1350754	0.22637851	2.6663219	21	8 6.7	20.9
519933 2013 RY_{105}	17.3	X	245.40175	242.61160	189.51139	2.42066	0.0599495	0.22544398	2.6736853	21	8 11.8	21.0
519934 2013 RZ_{105}	16.7	X	215.94211	98.37220	185.97357	14.97288	0.2486157	0.18371572	3.0645862	21	1 5.1	22.4
519935 2013 RB_{106}	16.7	X	272.28101	275.30897	39.03732	13.26532	0.2121304	0.20977589	2.8052119	21	3 30.0	21.1
519936 2013 RC_{106}	18.5	X	57.50537	67.90114	353.71018	6.47616	0.0749298	0.29393546	2.2402753	21	—	—
519937 2013 RE_{106}	17.1	X	292.95411	165.46214	192.28092	5.73755	0.0646978	0.22347411	2.6893743	21	7 5.3	20.6
519938 2013 RF_{106}	17.7	X	328.08668	137.30112	194.69442	3.12994	0.0847308	0.22863441	2.6487542	21	7 20.9	20.8
519939 2013 RO_{106}	18.1	X	304.85293	35.55512	294.43930	1.27461	0.2036696	0.22469123	2.6796535	21	5 23.2	21.5
519940 2013 RP_{106}	16.9	X	31.26961	276.23867	38.26549	11.79808	0.0686306	0.23786194	2.5798002	21	10 11.6	20.1
519941 2013 RR_{106}	17.0	X	245.68690	189.67733	222.34817	5.68026	0.0607449	0.21601459	2.7509371	21	7 15.2	20.9
519942 2013 RS_{106}	16.8	X	6.73205	103.85808	224.03894	8.49605	0.1550125	0.23562688	2.5960885	21	9 24.1	19.5
519943 2013 RU_{106}	17.4	X	299.42268	189.79224	156.77070	14.55142	0.1956079	0.22747139	2.6577749	21	6 10.8	21.1
519944 2013 RV_{106}	17.6	X	297.79737	253.10834	137.88416	8.34399	0.1985467	0.23656058	2.5892529	21	8 8.5	20.4
519945 2013 RA_{107}	17.7	X	32.98225	277.18409	82.40689	7.33662	0.1338230	0.26155122	2.4215766	21	12 25.0	20.6
519946 2013 RC_{107}	16.8	X	281.43674	271.61843	142.21427	13.48255	0.1920102	0.23596517	2.5936066	21	8 16.4	19.8
519947 2013 RO_{107}	16.1	X	35.14145	7.65808	34.12109	5.99790	0.1145151	0.14752148	3.5473106	21	—	—
519948 2013 RS_{107}	17.9	X	316.88524	44.39624	265.53189	1.24793	0.1950934	0.22313105	2.6921301	21	5 15.7	21.1
519949 2013 SJ_{4}	17.3	X	13.88300	113.72915	266.69352	13.58848	0.1119794	0.25838500	2.4413189	21	12 21.7	20.2
519950 2013 SQ_{6}	16.4	X	73.55903	67.94978	34.79891	9.85473	0.0656829	0.17471970	3.1688971	21	3 5.8	20.8
519951 2013 SC_{9}	16.3	X	249.36825	268.15582	327.79099	11.18995	0.0265911	0.18187314	3.0852499	21	—	—
519952 2013 SL_{13}	16.5	X	77.64182	76.95507	0.06927	9.47426	0.2275904	0.17474253	3.1686210	21	2 27.6	20.4
519953 2013 SB_{85}	18.0	X	260.08793	337.72345	23.08012	20.68384	0.0858953	0.34243413	2.0234137	21	5 9.5	20.6
519954 2013 SQ_{101}	17.0	X	216.68007	274.71983	200.32574	12.29484	0.2170891	0.22352523	2.6889642	21	8 16.4	21.6
519955 2013 SR_{101}	16.2	X	158.30111	11.92885	54.84837	13.04614	0.0722898	0.18604828	3.0389177	21	4 29.1	20.7
519956 2013 SV_{101}	17.0	X	115.52489	230.28354	196.57395	2.85399	0.1038062	0.18169704	3.0872430	21	3 13.6	21.4
519957 2013 SX_{101}	17.6	X	296.94212	189.95367	154.21204	3.78839	0.1887345	0.22204496	2.7009016	21	6 3.8	21.2
519958 2013 SY_{101}	17.3	X	281.89124	290.75707	74.38610	5.59808	0.1291553	0.22114613	2.7082151	21	6 20.3	20.9
519959 2013 SZ_{101}	16.8	X	288.99096	224.91089	167.07462	13.45983	0.1981849	0.23239921	2.6200703	21	7 24.7	20.4
519960 2013 TH_{45}	16.9	X	354.07412	345.12684	210.86641	8.22275	0.0313196	0.18641253	3.0349577	21	3 3.8	21.2
519961 2013 TT_{84}	17.3	X	306.57325	355.00123	298.58638	5.64417	0.0628552	0.21086263	2.7955653	21	4 27.3	21.0
519962 2013 TH_{127}	19.0	X	32.52850	76.71158	191.43600	22.33036	0.0581181	0.36109601	1.9530840	21	8 6.4	21.3
519963 2013 TG_{155}	17.9	X	39.68493	105.02175	135.00108	2.79146	0.0764896	0.23635707	2.5907389	21	7 8.9	20.9
519964 2013 TL_{159}	17.4	X	39.04841	223.29862	144.47724	7.39589	0.1297572	0.26700243	2.3885036	21	—	—
519965 2013 TH_{165}	16.8	X	278.06667	66.03759	284.21434	2.82337	0.0814312	0.21417814	2.7666398	21	6 2.5	20.6
519966 2013 TL_{165}	17.8	X	233.04078	231.40320	198.55873	3.36147	0.1086569	0.22546752	2.6734992	21	7 18.6	21.7
519967 2013 TQ_{165}	17.3	X	19.84194	133.90841	179.96218	5.37667	0.0243859	0.23363847	2.6107972	21	9 14.8	20.5
519968 2013 TU_{165}	17.0	X	266.68713	145.06995	259.40289	6.42344	0.0797098	0.22323625	2.6912843	21	7 29.2	20.7
519969 2013 TC_{166}	17.6	X	342.45255	104.04939	195.03734	12.65506	0.1893577	0.22737279	2.6585432	21	6 19.1	20.4
519970 2013 TH_{166}	16.0	X	62.52198	261.59806	201.96294	15.92517	0.0969854	0.17570280	3.1570656	21	2 14.1	20.4
519971 2013 TK_{166}	16.7	X	308.22855	28.71629	255.28589	7.70102	0.0648006	0.19721249	2.9231186	21	4 18.1	20.7
519972 2013 TU_{166}	17.1	X	280.54226	167.98549	178.79340	3.66268	0.1525710	0.21667642	2.7453325	21	5 22.4	20.9
519973 2013 TY_{166}	18.5	X	47.36562	233.44571	183.49640	6.30259	0.1025114	0.27988671	2.3146280	21	—	—
519974 2013 TZ_{166}	17.5	X	254.92182	74.35687	287.86646	0.94240	0.0801851	0.21113619	2.7931501	21	5 20.5	21.4
519975 2013 TA_{167}	17.8	X	291.02194	31.90180	17.43596	9.92212	0.0322244	0.23867822	2.5739149	21	9 20.9	21.1
519976 2013 TB_{167}	18.4	X	316.83927	58.31997	355.12505	2.66127	0.1210963	0.24763635	2.5114611	21	10 27.3	20.9
519977 2013 TC_{167}	16.4	X	168.94464	115.49521	240.68303	8.28445	0.1149154	0.17662421	3.1460762	21	2 12.8	21.5
519978 2013 TD_{167}	17.0	X	280.45171	54.96508	290.84954	3.53571	0.1241928	0.21282154	2.7783844	21	5 23.9	20.9
519979 2013 TE_{167}	17.5	X	225.88016	97.93066	323.65565	3.17058	0.0913282	0.21475093	2.7617181	21	7 2.2	21.6
519980 2013 TK_{167}	17.4	X	300.23987	247.71200	81.13730	5.78199	0.1412026	0.21957477	2.7211204	21	5 26.2	20.7
519981 2013 TL_{167}	16.8	X	235.89864	355.60376	52.69228	10.55078	0.1413252	0.21817089	2.7327811	21	6 20.3	21.0
519982 2013 TQ_{167}	17.4	X	216.58149	264.40698	183.52119	12.27747	0.2095279	0.21918019	2.7243852	21	7 15.4	22.1
519983 2013 TU_{167}	17.1	X	227.25164	243.49086	187.43644	9.38323	0.0870308	0.22120531	2.7077320	21	7 14.5	21.3
519984 2013 TY_{167}	17.7	X	226.61394	332.33584	127.08998	3.03629	0.0208286	0.23173040	2.6251092	21	8 31.4	21.2
519985 2013 TB_{168}	17.1	X	30.93100	277.62680	40.43835	9.46074	0.0636041	0.24322392	2.5417443	21	10 15.1	20.1
519986 2013 TE_{168}	16.5	X	197.05241	135.49399	182.48435	2.51291	0.0648291	0.17398694	3.1777882	21	1 28.3	21.2
519987 2013 TM_{168}	17.5	X	55.59534	98.34853	188.31633	7.47816	0.1154858	0.24271745	2.5452789	21	10 13.9	20.6
519988 2013 TS_{168}	17.1	X	291.01464	15.09639	43.57473	15.48151	0.0807944	0.23583819	2.5945375	21	10 1.9	20.5
519989 2013 TT_{168}	16.5	X	235.87425	331.45407	38.62393	12.46934	0.1456527	0.21020403	2.8014015	21	5 2.9	20.9
519990 2013 TU_{168}	17.0	X	298.07873	318.31161	43.32444	5.32694	0.1702356	0.22584753	2.6704994	21	7 2.5	20.3
519991 2013 TW_{168}	18.1	X	359.02784	296.46470	56.01210	3.19198	0.1675540	0.24389729	2.5370639	21	10 22.5	20.5
519992 2013 TZ_{168}	17.4	X	250.03931	30.39361	55.79181	7.87848	0.0967963	0.22997909	2.6384193	21	9 5.8	21.1
519993 2013 TF_{169}	17.4	X	356.76725	124.24838	209.45090	13.65937	0.0896317	0.23827720	2.5768021	21	9 8.2	20.5
519994 2013 TH_{169}	18.1	X	32.18997	123.97299	223.81316	5.60618	0.1153618	0.25521979	2.4614621	21	12 4.4	21.0
519995 2013 TM_{169}	17.0	X	220.58517	188.27622	278.08731	6.58600	0.1455129	0.22621883	2.6675765	21	8 16.2	21.1
519996 2013 TO_{169}	17.3	X	206.10713	55.68325	347.81067	5.16804	0.0809446	0.20451935	2.8530746	21	5 16.9	21.6
519997 2013 TV_{169}	17.2	X	337.76329	93.09372	245.65080	6.52206	0.1488046	0.23101044	2.6305606	21	8 10.6	20.0
519998 2013 TW_{169}	17.1	X	222.83112	279.77187	169.03653	8.21290	0.2106100	0.21941685	2.7224259	21	7 22.7	21.7
519999 2013 TF_{170}	17.0	X	327.43833	277.28487	48.52906	8.20851	0.1504771	0.22023034	2.7157177	21	7 4.6	20.1
520000 2013 TG_{170}	16.3	X	126.62588	185.68213	242.43368	10.63295	0.0127944	0.18610687	3.0382799	21	3 11.4	20.8